DOCUMENT RESUME

ED 403 423 CE 073 272

AUTHOR	Griffiths, C.
TITLE	Performance Standards Core Measures.
INSTITUTION	Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE	[94]
NOTE	133p.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Education Work Relationship; *Evaluation Methods; *Evaluation Problems; Evaluation Utilization; Performance Factors; Postsecondary Education; Program Evaluation; Research Methodology; Secondary Education; *State Programs; *Systems Development; Vocational Education
IDENTIFIERS	Carl D Perkins Voc and Appl Techn Educ Act 1990

ABSTRACT

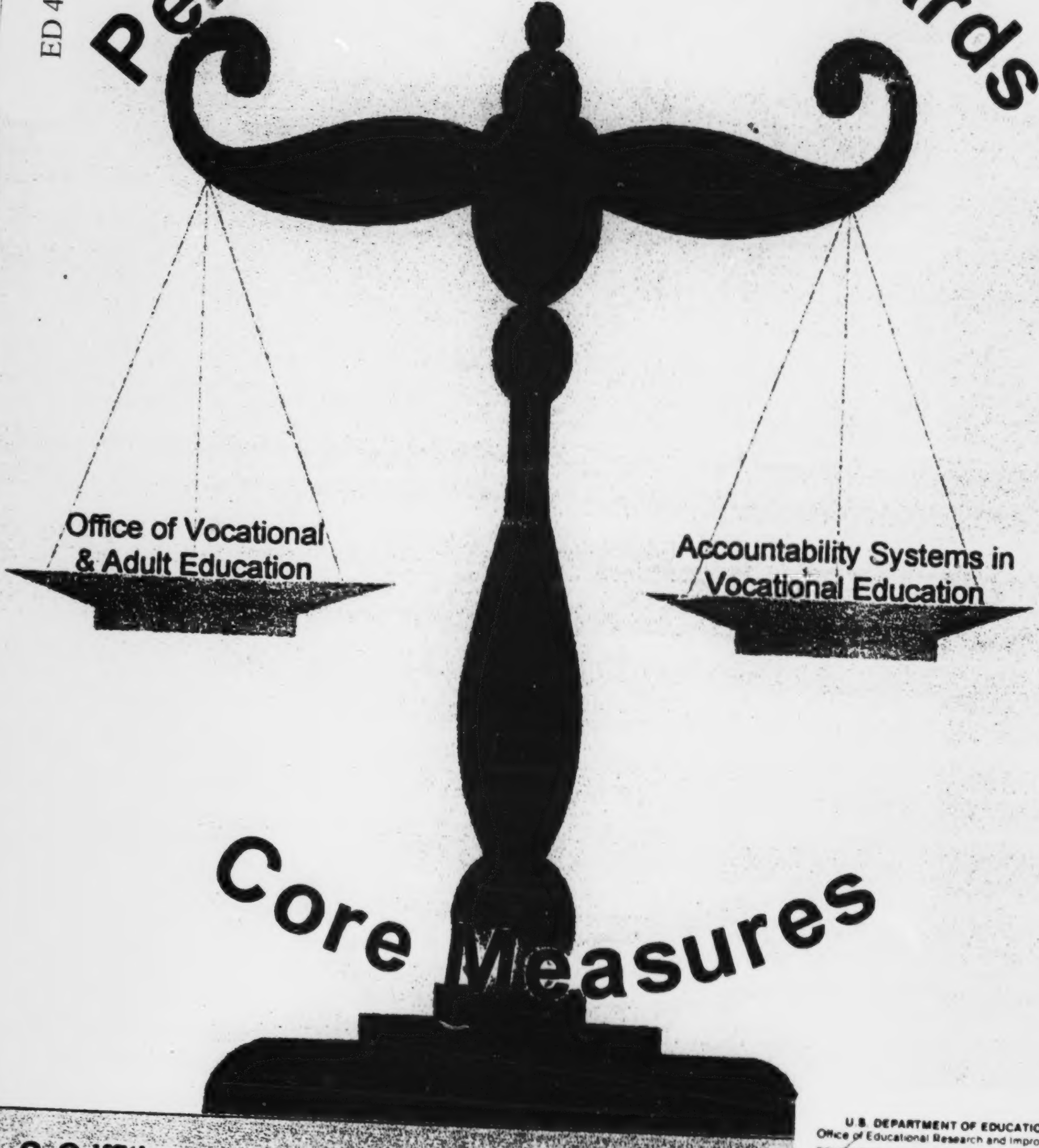
The Annual Performance Report submitted by each state to the Office of Vocational and Adult Education was used to monitor what states have developed and how and to what extent states have implemented their accountability system. The following findings of this analysis are synthesized in this report: (1) 32 states require evaluation of all programs and 17 states require annual evaluation of only Perkins Act-funded programs; (2) almost all states reflect vast differences in secondary and postsecondary measures, standards, assessment, and data collection methodologies; (3) significant factors influencing system development include state leadership philosophy and available technology and resources; (4) about half of the states separate measures of enrollment, completion, and placement for special populations; (5) approximately 38 states receive performance measure data from local education agencies; (6) approximately half of the state agencies are involved in local evaluation processes; (7) the next step for most states is to link performance measures to program improvement; and (10) nine school-to-work (STW) states plan to use Perkins Act measures to evaluate the success and progress of STW. The appendix contains summaries of each state's performance measures and standards system, describing some or all of the following: type of system; measures and standards for secondary, postsecondary, and special populations; the evaluation process; incentives, adjustments, and modifications; and future actions. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

CE

ED 403 423

Performance Standards


Office of Vocational & Adult Education
Accountability Systems in Vocational Education

Core Measures

C. Griffiths,
Education Program Specialist
U. S. Department of Education

CE073 222

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it
☐ Minor changes have been made to improve reproduction quality
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

BEST COPY AVAILABLE

Acknowledgments

I wish to acknowledge my colleagues for their contributions to the creation of this report. I extend special thanks, and my sincere appreciation, to Denise Garland for creating the graphics, for designing the report cover, and for assisting in identifying and extracting the performance measurement information from the states' reports. I thank Nancy Brooks and Tiandra Johnson for proofreading the report and the state performance measurement summaries. Lastly, I thank Doris Werwie, Chief, Program Analysis Branch, for her unwavering support for this project.

EXECUTIVE SUMMARY

System Development:

- states' emphasis to date has been on the development of measures and standards
- **32 states require evaluation of all programs** and 17 states require annual evaluation of only Perkins-funded programs
- while approximately half of the states report separate secondary and postsecondary systems, **almost all states reflect vast differences in secondary and postsecondary measures, standards, assessment and data collection methodologies**
- **significant factors** influencing system development are:
  - **state leadership** philosophy
  - **technology and resources** (expertise and funding) available to the state

Special Populations:

- 29 secondary and 20 postsecondary state systems include separate measures of enrollment, completion, and/or placement for special populations.

System Implementation:

- **approximately 38 states receive performance measure data from local education agencies**
- **approximately 50% of the state agencies are involved in the local evaluation process**
  - approximately 25% of the state agencies are conducting data analysis and providing local education agencies with results
  - approximately 25% are providing assessment tools, report forms, guidance and procedures to local education units
- **"evaluations" thus far are predominately data collection efforts** to determine how programs "measure up" against the performance indicators

Program Improvement:

- **the next step** for most states is to **link performance measures data to** the development and implementation of strategies and mechanisms for **program improvement**
- **12 states** link performance measures and standards to program improvement by requiring subrecipients to **incorporate the measures and standards data into the local application for funds.**

Relationship to STW:

- **a survey of nine STW states** indicated they **use or plan to use the Perkins measures to evaluate the success and progress of STW** to serve the needs of their customers.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

INTRODUCTION iii

- METHODOLOGY iii
- ORGANIZATION iii

NATIONAL SNAPSHOT 1

SYSTEM IMPLEMENTATION 1

- ✧ *States' Approach to the Annual Evaluation Process* 1
- ✧ *States' Involvement in the Annual Evaluation Process* 1
- ✧ *Annual Evaluation Process Requirements* 2
- ✧ *States' Approach to the Program Improvement Process* 2

SYSTEM DEVELOPMENT 3

- ✧ *System Scope: Who Is Being Measured?* 3
- ✧ *System Scope: How Are Systems Being Implemented?* 4
- ✧ *Factors Influencing the Scope of the System and Its Implementation* 5
- ✧ *System or Systems?* 6
- ✧ *Factors in Selecting a System Framework* 8

SYSTEM COMPONENTS 9

- ✧ *Measures:* 9
  - ** *Academic Skill Measures* 11
  - ** *Occupational Skill Measures* 12
  - ** *Placement Measures* 13
  - ** *Retention, Completion or Graduation Measures* 14
  - ** *General Employability Skills* 14
  - ** *Enrollment, Equity, and Access Measures* 15
  - ** *Other Measures* 16

- ✧ *Standards:* 17
  - ** *Absolute Standards* 17
  - ** *Value-Added Standards* 17
  - ** *Broad Guidelines as Standards* 18
  - ** *Factors Influencing the Type of Standards Selected by States* 18

- ✧ *Incentives, Adjustments, and Modifications* 19

SUMMARY 20

STATE SUMMARIES .... APPENDIX A

5

INTRODUCTION

One of the goals of education is to prepare youth and adults for an increasingly competitive and technological workplace. The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 has taken great strides toward meeting this objective. Section 115 of the Perkins Act requires states to develop and implement statewide systems of performance standards and core measures to evaluate the extent to which vocational programs meet workplace needs and prepare youth and adults in secondary and postsecondary programs for successful entry into either the workplace or continued education. Within a broad framework, the law allows states great latitude in selecting measures and standards and in determining methodologies for assessing programs that best meet states' educational governance and needs.

The Office of Vocational and Adult Education (OVAE) is monitoring what states have developed and how and to what extent states have implemented their accountability system. And while the focus of the requirement is on state and local program improvement, the federal office is also assessing to what extent it may tap into this performance data to inform and direct future vocational policy and planning.

Methodology

The information contained in this paper is extracted from the Annual Performance Report submitted by each state to OVAE in December 1993 or with the state plan submitted in May 1994. Reports were reviewed for the following information:

- the scope of the system (to whom the measures are being applied),
- how the system is structured,
- the types of measures and standards,
- how special population groups are being assessed,
- the nature and extent of system implementation,
- the types of incentives, modifications, and adjustments provided, and
- states' plans for continued system development.

Organization

This paper is divided into two sections. Section I contains a national snapshot of states' development and implementation of their performance measurement systems. Using simple statistical analysis, a synthesis and summary information is provided on:

- the scope and structure of the states' systems,
- the types of measures and standards developed by states,
- the factors influencing system development and implementation,
- how states' systems address the evaluation of special populations,
- the types of incentives, adjustments, and modifications created or allowed by states, and
- the nature of the data collection process.

Section II contains a one-to-three page descriptive summary of each state's performance measures and standards system.

NATIONAL SNAPSHOT

SYSTEM IMPLEMENTATION

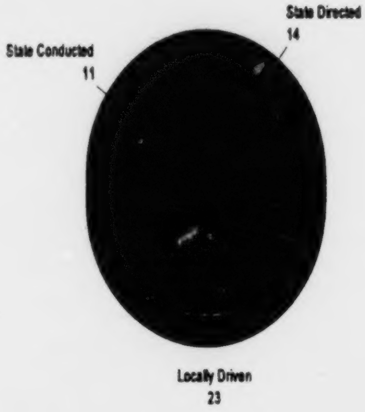
◇*States' Approach to the Evaluation Process:*

Implementation of the performance measures system has two phases: (1) an annual evaluation of students, programs, and/or institutions against the state-developed measures, and (2) a program improvement planning process.

The Perkins Act requires that each recipient of funds annually evaluate the effectiveness of their programs based upon the measures and standards. As seen in the chart below, there are three major approaches used by states to fulfill the annual evaluation requirements. They are:

State Approach to Evaluation

Number of States Selecting Each Approach



N= 48 - all states do not indicate a major approach

Approach #1: States collect data from each local education agency on each performance measure, analyze the data and **provide the local agency with a "report card" of how well they have achieved (or not achieved) the state standards,**

Approach #2: States provide local education agencies with assessment instruments, data collection forms, a set of procedures, and/or **guidance on conducting a local evaluation**, or

Approach #3: Local education agencies develop their own procedures and conduct evaluations against the measures and standards as they see fit.

◇*States' Involvement in the Annual Evaluation Process:*

Findings:

- approximately one-half of the states are involved in the local evaluation process,
- approximately a quarter of the states conduct state-level data analysis of local programs or institutions and report the findings to the local education agency,

- approximately one-fourth of the states are providing local education agencies with assessment tools, data, report forms, and/or procedural guidance to conduct data collection and/or the annual evaluation,
- approximately 86% of the states are receiving information or data from local education agencies about the local evaluation (i.e., outcome data, local evaluation analysis, or local improvement plans), and
- seven states provided insufficient information to determine if annual evaluations are planned or being conducted.

✧*Annual Evaluation Process Requirements:*

In addition to requiring annual evaluations, the Perkins Act is prescriptive to the extent that it directs a minimum content for the annual evaluation. Annual evaluations are to include:

- the participation of representatives of special populations,
- identification and adoption of strategies to overcome barriers resulting in lower rates of access and success by special populations in vocational education programs,
- an evaluation of the progress being made by special populations members in vocational education programs, and
- an evaluation of the progress that programs are making in providing students with strong experience in and an understanding of all aspects of the industry.

States' emphasis thus far has been on how programs "measure up" on the performance indicators (measures) or against the standards. To what extent the evaluation process includes the above components has not been reported.

✧*States' Approach to the Program Improvement Process:*

The most frequent approach taken by states to reinforce and link the performance measures and standards system to program improvement has been to incorporate it into the local education agency application for funds. Twelve states report that they require sub-recipients to report performance system data and evaluation findings in the local application. They are:

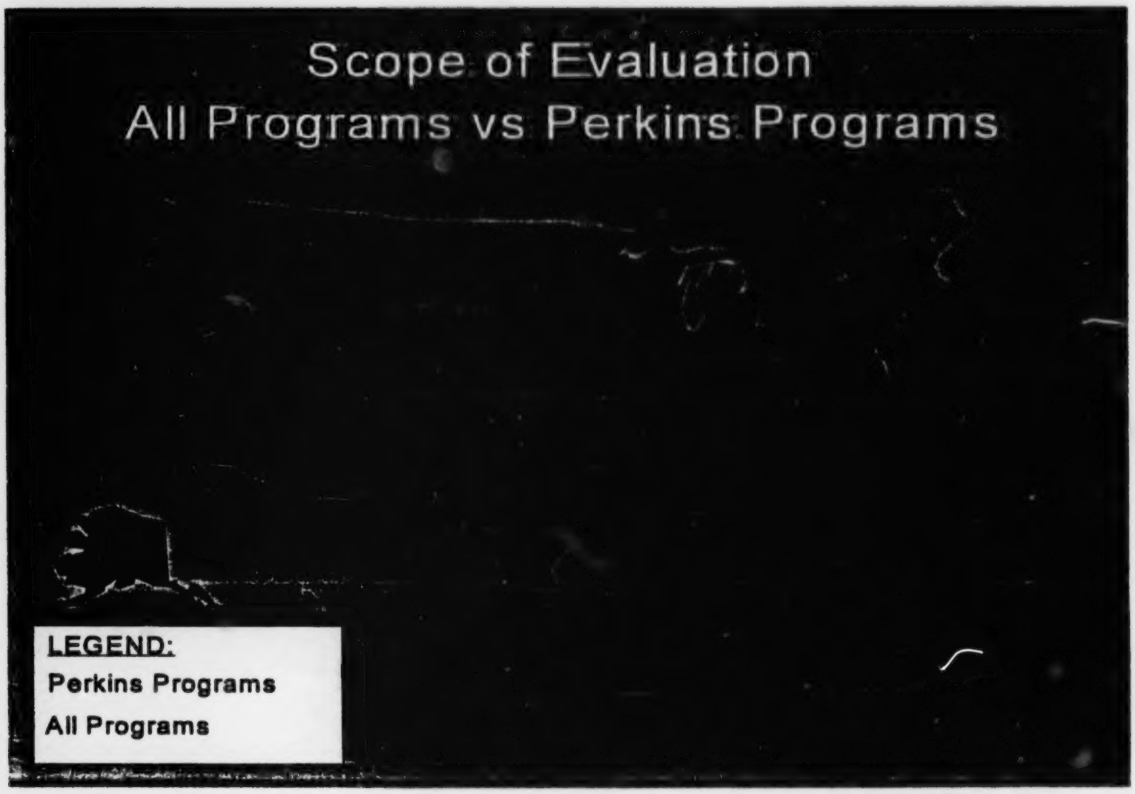
ALASKA
CALIFORNIA
GEORGIA
MICHIGAN
MINNESOTA
MISSOURI
NEW HAMPSHIRE
NORTH CAROLINA
PENNSYLVANIA
SOUTH CAROLINA
WASHINGTON
WISCONSIN

SYSTEM DEVELOPMENT

✧*System Scope: Who Is Being Measured?*

Graph 2.1 depicts which states require annual evaluations (using the state-developed performance measures and standards) of all secondary and postsecondary vocational programs and which states require evaluations of only Perkins-funded programs.

GRAPH 2.1



Scope of Evaluation
All Programs vs Perkins Programs

As can be seen in the graph, **thirty-two (32) states report that they require the annual evaluation of all secondary and postsecondary vocational programs** regardless of whether the program receives Perkins funds. In addition, two states (OHIO, PENNSYLVANIA) report that while requiring the annual evaluation of all secondary programs they require only those postsecondary programs that receive Perkins funds to conduct annual evaluations using the state performance measures and standards.

Seventeen states (17) require the annual evaluation of Perkins-funded programs. However, while CONNECTICUT and KENTUCKY report that they require only the

BEST COPY AVAILABLE

evaluation of Perkins-funded programs, they recommend that all programs be evaluated. Of the 17 states which require the more limited evaluation, two states (MASSACHUSETTS, NEW HAMPSHIRE) report that sub-recipients receiving Perkins funds are required to evaluate all of the vocational programs conducted at the institution regardless of whether or not the program area receives Perkins funds.

Table A identifies which states require evaluation of all programs or evaluation of only Perkins-funded programs.

Table A: State-By-State Listing of Program Evaluation Scope

ALL PROGRAMS:

ALABAMA
ARIZONA
ARKANSAS
CALIFORNIA
FLORIDA
GEORGIA
HAWAII
IDAHO
ILLINOIS
INDIANA
IOWA
KANSAS
LOUISIANA
MINNESOTA
MISSISSIPPI
MONTANA
NEBRASKA
NEW JERSEY
NEW MEXICO
NORTH CAROLINA
NORTH DAKOTA
*OHIO
OKLAHOMA
OREGON
*PENNSYLVANIA
RHODE ISLAND
SOUTH CAROLINA
SOUTH DAKOTA
TENNESSEE
TEXAS
VERMONT
VIRGINIA
WASHINGTON
WEST VIRGINIA

* all secondary programs

PERKINS-FUNDED PROGRAMS:

ALASKA
COLORADO
CONNECTICUT
DELAWARE
KENTUCKY
MAINE
MARYLAND
MASSACHUSETTS
MICHIGAN
MISSOURI
NEVADA
NEW HAMPSHIRE
NEW YORK
PUERTO RICO
UTAH
WISCONSIN
WYOMING

✧*System Scope: How Are Systems Being Implemented?*

Another dimension of the scope of a state's system of standards and core measures is the time frame or schedule by which states implemented the system. Implementation is defined as the direction states have given to districts and institutions regarding of whom and when they are to conduct an evaluation of their programs using the measures and standards.

States report a variety of different implementation models:

- immediate and **full implementation of all measures and standards in 1992-93** and mandated evaluation of all programs beginning that year (MISSISSIPPI),
- **phase-in of various measures and/or standards** as the assessment instruments and/or data collection mechanisms are developed (DELAWARE, MASSACHUSETTS),
- an **initial pilot study** of the measures, standards and the data collection process **in select programs or institutions and districts** with full implementation of the system only after reviewing the results of the pilot (MICHIGAN),
- systematic **phased-in evaluation of programs each year until all programs are evaluating against all measures** beginning in the 1995-96 school year (INDIANA),
- evaluation of **only those** programs and institutions **undergoing state-level monitoring** during that year (CALIFORNIA), and
- in a handful of known instances, predominantly at the postsecondary level, the required annual **evaluations** of vocational programs using the performance standards and measures have **not yet been conducted.**

One is unable to discern from a review of the states' reports whether one methodology has had superior results. It is conceivable that those states which conducted a pilot study prior to full system implementation or phased-in measures (as assessment instruments and data collection mechanisms became available) have had to dedicate less time and resources to troubleshooting gliches in system procedures and have had fewer system modifications and refinements than other states.

◇*Factors Influencing the Scope of the System and Its Implementation:*

A number of factors are reported to have influenced states in determining the scope of their evaluation. These include: (1) the regulation process, (2) state leadership philosophy, (3) data collection capability, and (4) the states' philosophy towards outcome-based accountability .

(1) Regulation Process:

Initially, the draft regulations stated that all programs were to be evaluated. The final determination, that states were required to evaluate only federally-funded programs, was made late in the regulation process. By this time, some states had developed an evaluation methodology based on the draft regulations.

(2) **State Leadership Philosophy**:

In those states where the state agency exerts a strong influence over the local education agency, states have established requirements to conduct annual evaluations of all programs. In states where the local education agency appears to have maximum autonomy, it is not likely that the state has mandated annual evaluations of all vocational programs.

(3) **Data Collection:**

The type and scope of the evaluation process are determined by the type of data collection process which the state selects for its system of performance standards and measures. The type of data collection process selected is influenced by two factors: (1) what systems are in place, and (2) in what direction the state is moving in developing data collection capability. Many of the computerized, state-wide data collection systems already established and in operation do not identify programs as federally-funded or non-federally funded. In order to tap into these data collection mechanisms, some states chose to apply the evaluation requirement to all programs.

(4) **State Philosophy Toward Outcome-based Accountability:**

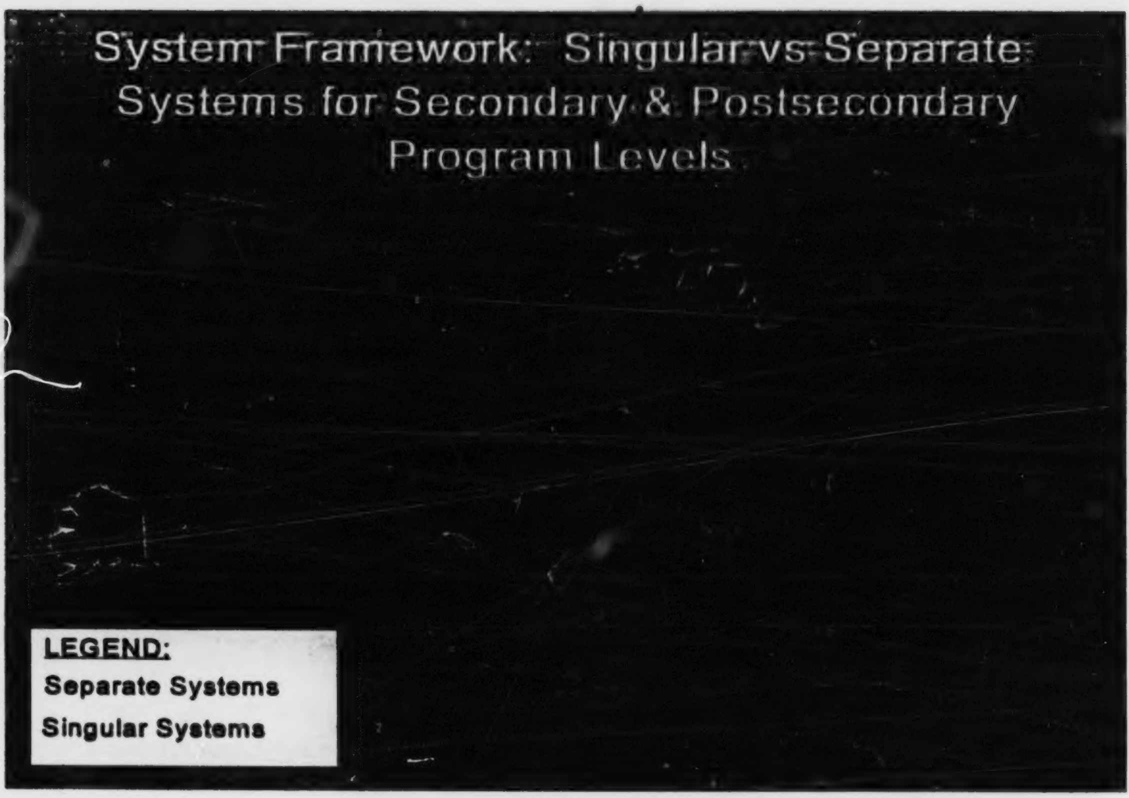
Those states having a strong commitment towards outcome-based evaluation as demonstrated by legislative mandate (e.g., OREGON, ILLINOIS) are likely to apply the performance measures and standards to all of their vocational programs.

✧*System or Systems?*

From a federal perspective, the number of performance standards and measures systems and the variation found in them is an important consideration in any discussion of developing a national set of performance outcome data.

Approximately half of the states report having a singular system of performance measures and standards for secondary and postsecondary vocational programs while the other half describe what appear to be separate systems. Graph 2.2 identifies (1) those states which developed a single system of measures and standards for secondary and postsecondary vocational programs and (2) those which developed separate systems of measures and standards to assess secondary and postsecondary vocational programs.

GRAPH 2.2



System Framework: Singular vs Separate Systems for Secondary & Postsecondary Program Levels

LEGEND:

Separate Systems

Singular Systems

A closer look at the system of those states reporting a singular system reveals, however, that **there are significant differences between secondary and postsecondary program measures, standards, incentives and adjustments, measurement instrumentation and methodology, data collection processes, and/or implementation of the system.**

DELAWARE, for example, reports having a singular system of performance standards and measures. Academic gain in DELAWARE is defined as "competency in writing and mathematics". How DELAWARE measures academic gain is significantly different at the secondary and postsecondary level:

> Secondary Program Level: Academic gain is the difference between the 8th and 10th grade scores of vocational students on a state-administered test.
>
> Postsecondary Program Level: Academic gain is the percentage of vocational students who complete all communication and mathematics courses required for their program as compared to the percentage of all students in the institution completing the communication and mathematics course requirements for their individual programs.

BEST COPY AVAILABLE

As another example, SOUTH DAKOTA also reports having established a singular system of measures and standards. However, the measure of program enrollment and completion (targeting special population students) is assessed very differently at the secondary and postsecondary program levels:

> Secondary Program Level: Program enrollment and completion is the percentage of special population students enrolled in and completing vocational programs.
>
> Postsecondary Program Level: The program enrollment and completion measure is assessed by identifying and listing the type of supplemental instruction and supplementary services provided to special population students and the type of affirmative outreach and recruitment efforts used by the institution to recruit special population students.

◊*Factors in Selecting a System Framework*:

An early issue addressed by states in the development process was whether or not the state would develop a single system of measures and standards to assess secondary and postsecondary level vocational programs or if it would develop separate systems to assess secondary and postsecondary programs. Some considerations in this decision-making process included:

- the cost and resources available to the state to develop and operate the system,
- state assessment and data collection systems in operation,
- initiatives and mandates already underway in the state, and
- the structure of the state delivery system.

Apart from funding considerations, the predominant factor appears to be the structure of the state's vocational education delivery system. Separate systems of performance standards and measures are found in 17 of the 25 states where the administrative and operational authority for delivery of secondary and postsecondary vocational education is delegated to separate agencies.

However, where a state has established congruent goals, objectives, and priorities for secondary and postsecondary level programs, where the responsible agencies are communicating information and coordinating their strategic planning, and where the state legislature supports performance accountability through state mandate, separate education authorities are working closely to integrate the accountability system. The Oregon Benchmarking System and the Florida Consensus System exemplify this approach.

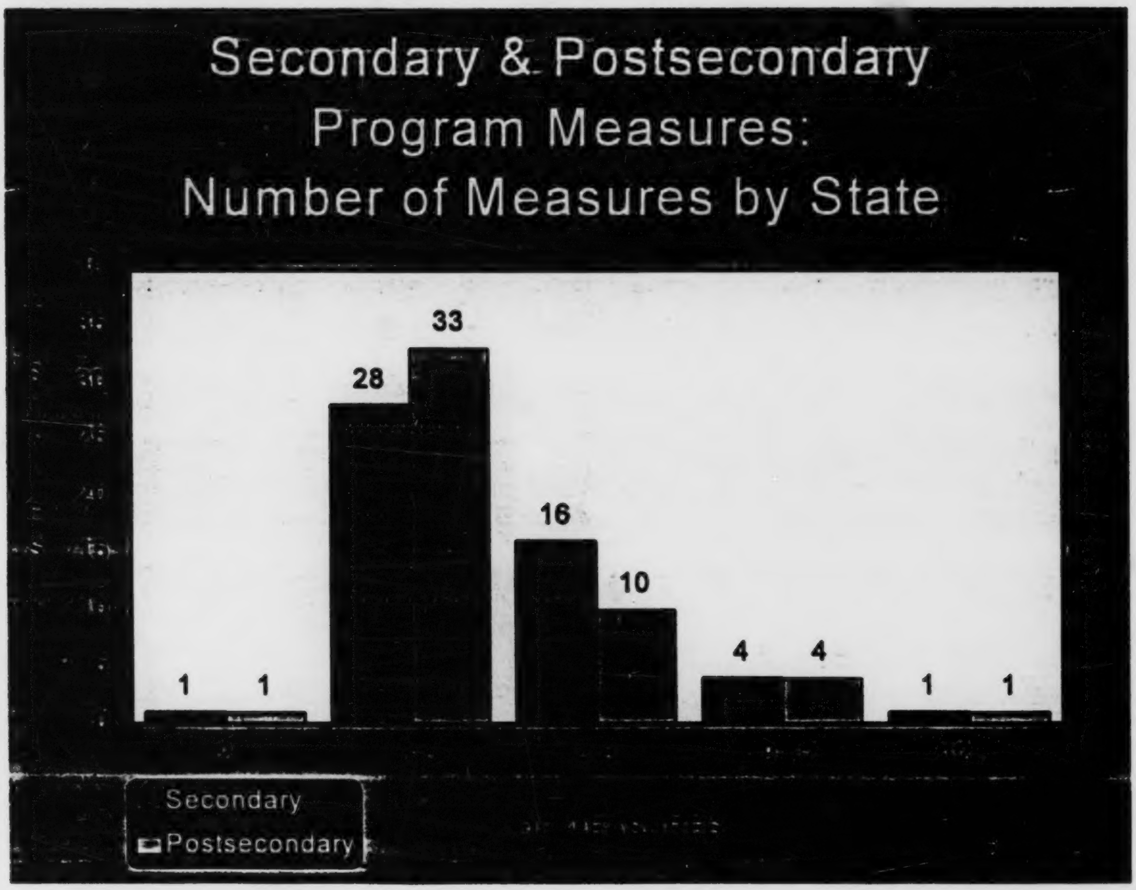
SYSTEM COMPONENTS

✧*Measures:*

A measure may be defined as "a description of an outcome". The Perkins Act allows states great latitude in selecting measures and standards. Section 115 of the Act requires only that a state's system include a measure of academic gain, a measure of occupational gain, and a measure of performance outcome in either competency attainment, workskill attainment, retention and/ or completion of secondary school, or placement in employment or further education.

States have developed many more than the minimally required measures. Graph 2.3 provides a breakout by program level, depicting the wide range in the number of measures developed by states.

GRAPH 2.3



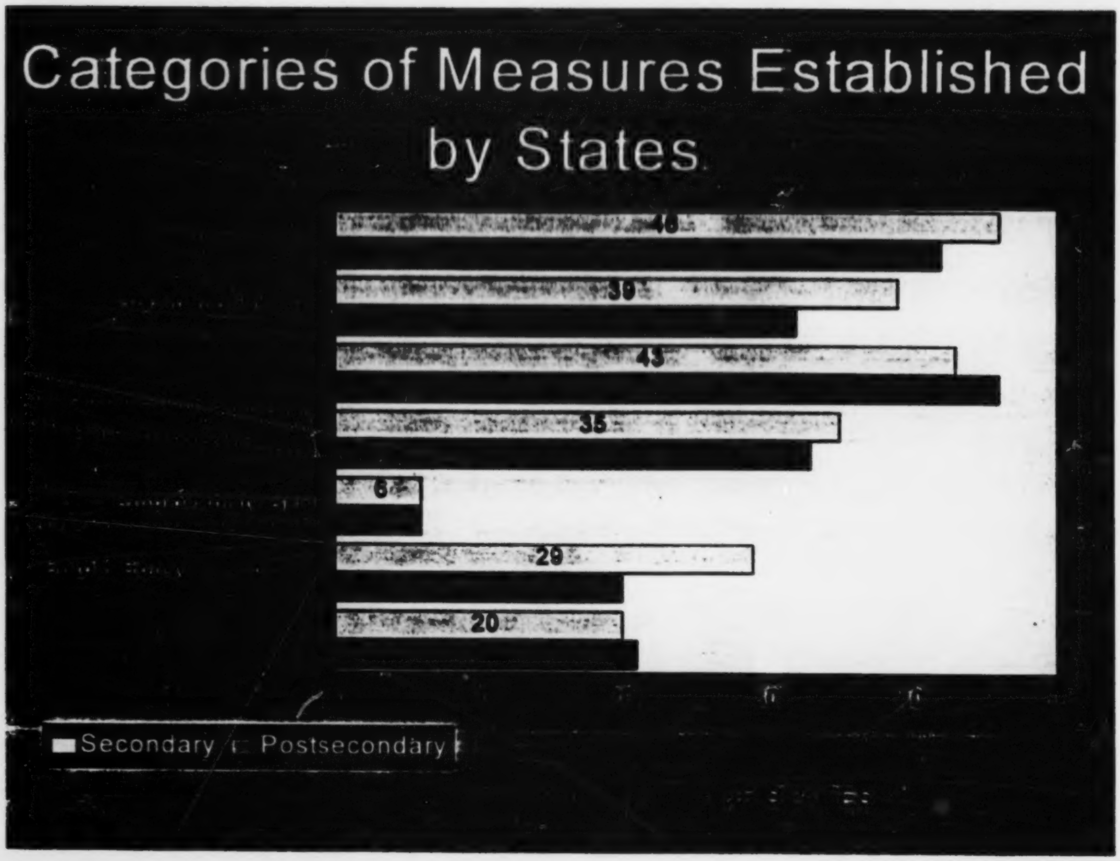
BEST COPY AVAILABLE

States, in an effort to establish measurement indicators appropriate to their programs and to their needs, have produced a wide array of measures. These measures can be placed into seven broad categories:

Academic Skill Measures
Occupational Skill Measures
Placement Measures
Retention, Completion, or Graduation Measures
General Employability Skills
Enrollment, Equity, and Access Measures
"Other" Measures

However, while the measures may be categorized into these seven areas, **it is important to understand that within any single category, each state may have defined the measure differently. The result is an unlimited number of variations on a theme within each category.** Graph 2.4 identifies how many states have developed secondary and postsecondary measures in a category.

GRAPH 2.4



BEST COPY AVAILABLE

The graph reflects that states are fairly consistent across program levels in their propensity to develop types of measures. As seen in the graph, **academic skill and placement are the most frequently assessed measures** at both the secondary and postsecondary level. These are followed, respectively, by occupational skill and program retention or completion measures. **Measures of enrollment, equity, and access appear significantly more frequently in secondary program level performance measurement systems (29 states) than in postsecondary program level systems (20 states).** Placement is the only measure included more often in postsecondary systems than in secondary performance measurement systems.

The next section provides an in-depth look at the differences across states in the definitions of measures and the obstacles states encountered in creating specific types of measures. Following this is a discussion of the three approaches states have taken in developing standards and the broad spectrum of strategies states are using to address incentives, system modifications and adjustments.

Academic Skill Measures:

Academic skill includes two broad skill areas: **basic academic skill and advanced academic skill**. Basic academic skill may include, for example, communication, math, science, reading, listening, and/or writing. Advanced academic skill may include, for example, critical thinking or reasoning. States report using the following indicators to assess academic skill:

- gain in student(s) basic academic competencies,
- gain in student(s) advanced academic competencies,
- student achievement in basic academic competencies,
- student achievement in advanced academic competencies,
- program gain: comparing achievement test scores across years (i.e., 11th grade student scores compared to 11th grade student scores the preceding year),
- enrollment in or completion of designated academic courses,
- achievement of SCANS competencies,
- eligibility for a diploma or degree, or
- a specified grade point average in designated courses.

MAJOR OBSTACLES: As seen above, the academic skill measure is often defined as achievement rather than gain. Although the Act requires states to establish measures of academic and of occupational competency **gain**, not academic and occupational achievement, approximately 10-20% of states have not complied with this requirement. Major reasons cited by states for not establishing academic gain measures include:

- lack of authority to increase local assessment requirements,
- the prohibitive cost associated with increasing testing requirements,
- lack of appropriate test instruments to measure gain, and/or
- an inability to incorporate academic skill gain measurement and data collection into current (rolling) admissions procedures.

Occupational Skill Measures:

States have used one or more of the following indicators to measure an occupationally specific skill:

- student scores on occupational competency tests (pre-post or post-only),
- student demonstration of a program's occupational competencies as rated by the instructor, vocational advisory committee, or technical skill committee and documented on a competency checklist,
- specified course(s) or program completion,
- student mastery of SCANS competencies,
- placement (job or continued education, advanced education standing),
- warranty or institutional guarantee rates,
- designated grades or grade point average,
- award of degree, diploma or certificate of skill mastery, employability profile,
- licensure, industry certification,
- employer satisfaction , and
- development of program competencies.

Eleven states have not established measures of occupational skill for secondary level programs and 18 states have not established occupational skill measures for postsecondary programs.

The omission of a measure of occupational skill in vocational education programs may, at first glance, appear to be a serious problem. However, all but two state postsecondary programs (ALASKA, NEW HAMPSHIRE) have established measures of either placement or program completion. States may conclude that program completion or placement indirectly assesses occupational competency (i.e., via validity generalization -- a placement or program completion or graduation may connote occupational achievement).

MAJOR OBSTACLES: The two most predominant obstacles reported by states in establishing state-wide measures and standards for occupational competency are the **lack of standardized occupational competency assessment instruments and** the lack of standardized **assessment standards** in a wide range of occupational or industry skill areas.

Although a few states are using commercially developed occupational competency tests, occupational competency checklists are the most frequently used instrument for measuring and reporting students' mastery of occupational skills. These checklists range from state-industry mandated occupational competency checklists to locally-developed checklists. Student mastery of a skill is, with few exceptions, evaluated and reported by the course instructor.

Placement Measures:

Placement is defined as engagement in post-program activities. Placement indicators may target program completers, vocational completers seeking employment or further education, or all vocational course takers. States have used one or more of the following indicators to measure placement:

- placement in non-related employment, full-time and/or part-time,
- placement in related employment, full-time and/or part-time,
- placement in military, government service,
- placement in continued education/training, related and/or non-related field of study,
- students' anticipated plans based on a pre-graduation questionnaire,
- students' expressed desire for employment upon graduation which results in employment,
- students' continued employment 18 months or 2 years after graduation,
- the unemployment rate of program completers,
- students' employment status within a given time frame (i.e., 1 month employment within the last 9 months), and/or
- placement in any paid or non-paying activity (i.e., homemaker, volunteer) totaling full-time activity.

Of the performance outcome measures, **placement is the most frequently established measure**. States have established a placement measure in 43 secondary and 46 postsecondary state performance measures systems. Placement data may include related and non-related employment, further education or training, and military service. In 33 states, data on employment and continuing education is aggregated to calculate one rate for placement.

In the remainder of states, the most common refinements to the placement measure include:

- the calculation of separate measures and standards for job placement and for continuing education (e.g., HAWAII, ILLINOIS, NEW JERSEY, MAINE, MINNESOTA, NEW MEXICO, OHIO, RHODE ISLAND, SOUTH CAROLINA),

- placement rates calculated separately for special populations (e.g., FLORIDA, KANSAS, NEBRASKA), and/or

- the use of a weighted scale for factoring the placement rate based upon either the type of student placement or the placement of a special population student. Placement in training-related jobs or the placement of special population students are weighted greater than a non-training-related placement or placement of non-special population students (e.g., ALABAMA).

MAJOR OBSTACLES: The most significant concern regarding placement data is its **validity.** Most placement data are gathered via student survey. Research supports that this type of data collection is less accurate than other methodologies. In at least two instances (HAWAII, MARYLAND), placement data are based upon student intentions for work or continued education as reported by the student prior to graduation.

Retention, Completion, or Graduation Measures:

States have used one or more of the following indicators to measure retention, completion, or graduation of vocational course-takers, "declared" vocational program students, and/or program or course graduates. These measures may refer to either the institution, program or course (i.e., retention at the institution or in the program or course, or completion of a core of vocational courses for job advancement without pursuing a degree or certificate). Indicators being used include:

- award of a diploma, degree, GED, or certificate,
- development of an institution or program retention plan,
- tech-prep enrollments, retentions, completions,
- dropout rates,
- graduation rates,
- student continued enrollment for two or more terms,
- gainful employment upon completion of a technical institute program,
- satisfactory completion of a specified level of instruction (enrichment, basic skills, or occupational programs),
- program or institution enrollment at the term's beginning compared to term end,
- student transfer to further education or employment,
- completion rates of Perkins-funded programs vs non-Perkins-funded programs, and/or
- student grades or a specified grade point average of designated course(s).

General Employability Skill Measures:

General employability skills are defined as those **competencies related to job procurement and job retention not associated with specific occupational competencies.** General employability skills may include, for example: job hunting skills, interpersonal relationship skills, teamwork skills, integrity and honesty, creativity, self-management skills. States have used one or more of the following indicators to measure general employability skills:

- implementation of workplace readiness modules in the curriculum,
- student assessment of skills using standardized tests,
- completion of a course in work ethics, and/or
- instructor assessment of student mastery of workplace competencies.

Enrollment, Equity, and Access Measures:

These measures are most often established by states to address the participation of special population groups (including gender) in vocational education. States may have used one or more of the following measurement indicators:

- minimum/maximum enrollment levels per program,
- special population enrollment proportionate to total school enrollment,
- special population enrollment proportionate to community population,
- special population enrollment proportionate by program,
- special population enrollment proportionate to special population enrollment and/or completion in non-vocational programs within the institution,
- thresholds/ceilings for non-traditional enrollments,
- a designated instructor/student ratio,
- the dissemination of information to all groups,
- proportionate completion and placement rates for special population groups,
- type of supplemental instruction and supplementary services provided to special population students and affirmative outreach initiatives used to recruit, and
- demonstration of compliance to regulatory requirements.

Twenty-nine states at the secondary level and 20 states at the postsecondary level have established one or more separate measures to evaluate the access, enrollment and participation of special populations and/or to assess gender equity in vocational education programs. In these instances, data are generally aggregated for the total special population rather than separated by individual special population group.

That approximately half the states are using this approach, does not mean to imply, however, that other states are not assessing the participation of special population groups. Another option which some other states have selected is to assess the participation of special population students as a sub-measure within the data collection mechanism implemented for each measure.

MAJOR OBSTACLES: A major factor in states' capability to assess the participation of special populations in vocational education programs is the nature of the data collection processes which states are using. **Current computerized data collection systems may not include special population identifiers, thereby prohibiting states from disaggregating data for or by special population group for all measures.** States report cost considerations and the Perkins Act requirement to include "procedures for using existing resources and methods developed in other programs... " as influencing data collection methodology decisions.

A second major obstacle affecting the assessment of special populations in vocational education programs is the ramifications on institutions or programs (real or perceived) that do not fully meet the standards established by states: **high stakes assessment**. To address this concern states may have weighted the calculations for members of special populations, excluded special population students from one or more measures, and/or established different standards for members of special populations.

Other Measures:

The "other" category includes a vast array of measures. Included in this category, states have established various measures to assess:

- vocational awareness,
- career development or career guidance,
- student satisfaction,
- employer satisfaction,
- earnings,
- incentives, and
- program process measures.

These "other" measures can be grouped into three major categories:

EMPLOYER/STUDENT SATISFACTION MEASURES: Eleven states measure student or employer satisfaction (via surveys) with either the secondary and/or postsecondary programs:

COLORADO
IOWA
MARYLAND
MINNESOTA
NEBRASKA
NEW HAMPSHIRE
NEW JERSEY
RHODE ISLAND
TENNESSEE
WEST VIRGINIA
WYOMING

CAREER GUIDANCE and DEVELOPMENT MEASURES: Career Guidance and Development Measures: Career guidance and development measures are included in the following state systems:

ALASKA
CONNECTICUT
KENTUCKY
NORTH CAROLINA
OHIO
RHODE ISLAND
SOUTH DAKOTA
UTAH

PROGRAM INPUT and PROCESS MEASURES: Process measures include, for example, programs or curriculums having identified competencies and state approval, business and industry site visits by instructors, collaboration, program productivity, and stable program enrollment. States including process or input measures are:

ALASKA
ARIZONA
FLORIDA
ILLINOIS
KENTUCKY
MARYLAND
MISSISSIPPI
OHIO
RHODE ISLAND
SOUTH DAKOTA
VERMONT
WASHINGTON
WYOMING

It appears that states which are incorporating "other" measures are either:

- building the state's performance measures and standards system on to and expanding current evaluation and assessment processes so as to include the Perkins requirements (this appears especially true at the postsecondary level with the significant number of states including process measures), or
- are approaching program accountability from a total quality management concept and are assessing the educational process, at various points along the process continuum (input, process, as well as, outcome).

◇*Standards:*

Whereas a measure is the description of an outcome, **a standard is the level or degree to which the student or program is expected to accomplish or achieve that outcome.** As with the development of measures, states have shown much creativity in their approach to establishing standards. States' have established the following types of standards:

Absolute Standards
Value-added Standards
Broad Guidelines
No State Standards

Absolute Standards:

Absolute standards are defined as **fixed levels of achievement**. States have selected absolute measures most frequently for measures of academic skill, occupational competency, and placement. An example of an absolute standard is:

> "The placement standard for program completers is 70%." (KANSAS-secondary programs

Value-added Standards:

Value-added standards are defined as **incremental increases in standards based upon past performance**. States have selected value-added standards most frequently for measures of program retention and completion and for those measures of program enrollment, equity, and access. An example of a value-added standard is:

> "The graduation rate will increase by a factor of 1.05 each year until a 90% rate is achieved." (WISCONSIN- secondary programs)

Broad Guidelines:

Broad guidelines standards are defined as those that enable **local agencies and institutions to set standards appropriate to their needs and program goals.** Examples of broad guidelines being used as the state standards include:

> "Program completers will demonstrate mastery of competencies necessary for successful entry-level employment in their target occupations and continuing their education." (COLORADO) ,and
>
> "While performance goals (standards) are established by the state, these standards refer to the desired aggregate performance of all local systems. Standards are not imposed unilaterally to all institutions. Instead, each local entity sets standards appropriate to its local situation." (ILLINOIS).

The establishment of broad guidelines as "standards" is not directed toward any particular type of measure. Rather, it appears to be the result of a states' leadership style and philosophy. This appears true also for states which set no standards.

Factors Influencing the Type of Standards Selected by States:

A number of factors is reported to have influenced states in selecting standards. The three predominant factors are: (1) the state's leadership style, (2) the state's philosophy regarding the use of accountability systems, and (3) the state's resources.

STATE LEADERSHIP: In those states where the state agency exerts a strong influence over the local education agency, states are more likely to have established performance standards. In states where the local education agency appears to have maximum autonomy, it is less likely that the state has established rigid standards.

STATE PHILOSOPHY ON ACCOUNTABILITY: States' plans for the use of the measures and standards evaluation data are also reflected in the states' approach to standards-setting. Where performance measures are used in the implementation of state-level program monitoring, states are more likely to establish specifically measurable standards which guide them in program evaluation. States emphasizing locally-directed program improvement report more development of value-added standards and broad guidelines to assist local districts in their program planning and improvement process.

STATE RESOURCES: Those states having access to baseline data through centralized data collection are more likely to have established more absolute or value-added standards. In states such as OKLAHOMA, OHIO, and NORTH CAROLINA, extensive resources, time and money, have been dedicated to developing valid assessment systems based upon standards.

◇*Incentives, Adjustments, and Modifications:*

The Perkins Act requires that states provide for incentives, adjustments, and/or modification in the state system of performance measures and standards to encourage service to special populations. **Approximately 50% of the states identified incentives, adjustments, or modifications in their performance measures system.** States report that adjustments and modifications to the system measures and standards result from local request or local initiative. OHIO and MICHIGAN have demonstrated special creativity in identifying incentives to encourage programs to serve special populations.

The following listing identifies a broad spectrum of strategies and initiatives being used to fulfill this requirement. States reporting the adjustment, modification, or incentive in its system are identified in parentheses.

ADJUSTMENTS OR MODIFICATIONS:

- modifications to the measures and standards are allowed in alignment with a student's individualized educational plan (ARIZONA, NORTH DAKOTA),
- local agencies are authorized to modify the State measures or standards based upon the criteria identified in the Law, for example, local unemployment rates or the demographics of the population (COLORADO, IDAHO, MONTANA, OREGON, PUERTO RICO),
- the exclusion of certain groups of students from the evaluation (MISSOURI), or
- the use of alternate forms of assessment instruments, equipment, curriculum, or educational methods (NEVADA, NEW HAMPSHIRE, OKLAHOMA).

INCENTIVES:

- targeting funds to programs with high concentrations of special populations (DELAWARE),
- weighting the calculations (i.e., giving double credit for placement in a job related to the training program, giving double credit for the graduation of a student identified as an at-risk student (KENTUCKY, VERMONT),
- state recognition of exemplary programs, for example, those serving high rates of special population students or those meeting high standards (MICHIGAN, MONTANA, NEVADA, NEW MEXICO),
- assessing the amount or extent of supplementary services provided to special population students (GEORGIA),
- providing supplementary services to special population students (WYOMING),
- providing increased staff development opportunities (NEVADA),
- authorizing interim standards to selected programs or institutions (MISSOURI),
- increased/reduced reporting requirements (OHIO),
- giving priority for or withholding funds (OHIO),
- giving priority for or withholding state accreditation (OHIO).

SUMMARY:

States report significant progress in the development of performance measures and standards. They report a proclivity to develop measures beyond the minimum requirements of the Perkins Act and to apply the system to all programs. Approximately half of the states have developed separate systems to evaluate secondary and postsecondary programs. Factors having a strong influence on system development are (1) a state's leadership philosophy and (2) the resources (expertise and funding) and technology available to the state agency.

Measures and standards established by states fall within seven broad categories. However, there are significant differences across states and even program levels in the definition of measures within each category. For example, academic skill is defined as a score on a standardized reading/math test in one state and it is defined as completion of a course or award of a high school diploma in another state.

Standards fall into three major types: absolute, value-added, and general guidelines. Within each of these categories there is broad variance. As with the development of measures, states have approached the development of standards within the framework of the state's leadership philosophy. States having a strong philosophy of local autonomy are more likely to have established broad guidelines or to have deferred standards-setting to the local educational agency. Those states having a strongly centralized vocational education delivery system are more likely to have set more specific standards.

The participation of special populations in vocational education is addressed by over half of the states via separate measures of enrollment, completion, and/or placement for special populations. Data collection systems which do not allow for the disaggregation of data by special population are a factor precluding some other states from taking this approach. Also, some of the modifications and incentives which states have authorized may have a significant influence on the effectiveness of the performance system to promote the participation of special populations. The higher the stakes placed on assessment results by state or federal entities, the greater is the pressure felt by programs to meet the standards; perhaps even at the cost of serving all students.

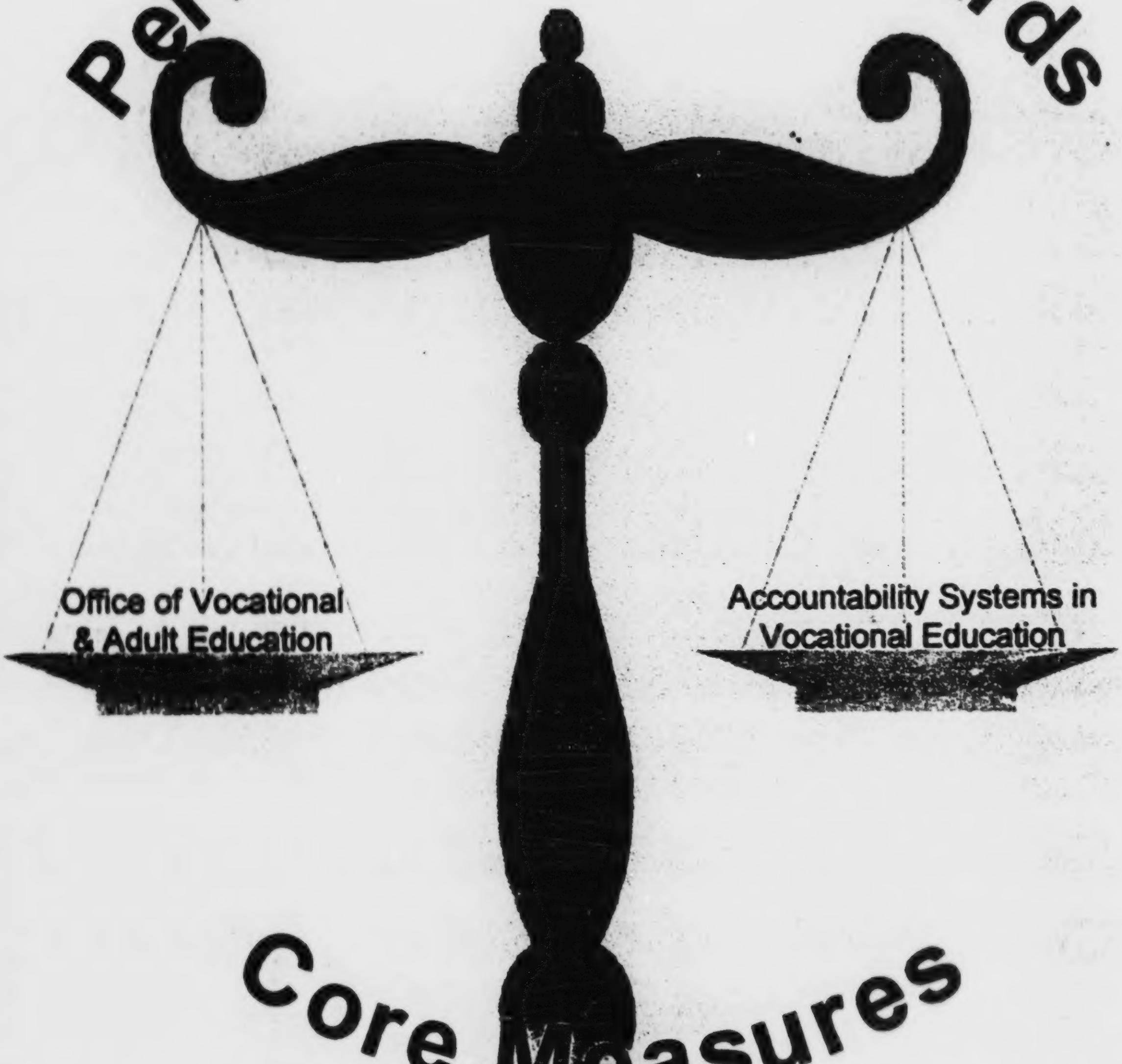
States' emphasis and resources have been dedicated primarily to system development. States are now beginning to focus on system implementation. System implementation includes two components (1) program evaluation, and (2) program improvement planning.

Approximately 50% of the states are involved in the evaluation process, either conducting data analysis or assisting local agencies in the conduct of the local evaluation. Eighty-six percent of the state agencies report receiving information or data from the local agencies pertaining to the local evaluation. The most frequent approach taken by states to link the performance system to local planning is via the local application process. Twelve states report requiring local recipients to include evaluation data in their local application.

States have made significant progress in creating outcome-based accountability systems to evaluate the effectiveness of vocational education. However, much work remains in order to tie these systems into states' systemic reform for workforce development and to establish these systems as an integral component of the vocational education delivery process.

CE

Performance Standards


Office of Vocational & Adult Education
Accountability Systems in Vocational Education

Core Measures

State Summaries

Appendix A

BEST COPY AVAILABLE

ALABAMA

Type of System:

Alabama has developed separate measures and standards to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards and Special Populations:

The secondary measures are:

high school graduation rate,
high school exit exam scores,
placement,
occupational achievement,
optimum enrollment,
teacher/coordinator workloads, and
curriculum/instruction components.

Graduation rate measures the percentage of vocational program completers receiving a diploma. The rate will improve each year until it reaches the graduation rate of all students. High school exit exam scores measure students' academic achievement. The final percentage of vocational students passing each part of the graduation examination will improve until it reaches or exceeds a passing percentage of 95%.

Placement measures the rate at which vocational program completers are engaged in post program education/employment activities. The placement percentage of vocational completers will improve each year until it reaches or exceeds 75%. Percentage is computed using a weighted scale. Each program completer is counted as 1.0. Placements are weighted by type. For example, full-time, in-field employment is weighted as 1.0 while related employment is weighted as .75 while non-related employment is weighted at .5. Completers with disabilities participating in full-time, in-field or related employment are weighted at 2.0. The sum of the weighted values is divided by the total completer count.

Occupational achievement is measured using occupational competency tests. The average program scores of the occupational preparatory vocational completers will increase each year until an average of 70% mastery on a comprehensive test is reached and maintained for each occupational program.

Optimum enrollment measures student enrollment by program. Optimum enrollment levels seek to maximize the effectiveness of available funds. The rationale is that under-enrollment wastes funds while over-enrollment dilutes optimum instruction, also wasting funds. Optimum program enrollments range between 15-20 or 15-25 students depending on the occupational program. The standard is for all programs to range within +/- 20% of the optimum range.

Teacher/coordinator workloads measure the number of instructional class periods assigned to staff to monitor full-time vocational instruction. The standard is that teachers and coordinators will be fully involved in only vocational duties/instruction.

The curriculum and instruction measure monitors that each vocational program includes the requirements of the Alabama Performance Accreditation System as well as meets the mandates of the Perkins Act. The standard is for a minimum 20% increase annually in the number of programs meeting all requirements until all programs meet all accreditation requirements.

The postsecondary measures are:

competency gain in academic skills,
implementation of workplace readiness modules,
student retention, and
implementation of a placement tracking system.

Competency gain in academic skills is measured using the ACT-ASSET as a pre/post assessment to all students in the associate degree, certificate, or diploma programs.

Implementation of workplace readiness instructional modules monitors the progress of the postsecondary system to provide postsecondary vocational program students with instruction in problem-solving, teamwork, and self-management skills.

Student retention measures the state's progress in developing and implementing a retention plan in each institution and the progress of each institution to decrease the number of undeclared majors at each college by three percent per year.

Implementation of a placement tracking system will measure the state's progress towards developing and operationalizing a system to identify the rate of program completers and program leavers and the percentage of postsecondary vocational students entering general or related employment, further education, or military service.

Evaluation Process:

The state provided local education agencies with necessary forms to compile the data, along with relevant information from State Department of Education records. Standards were piloted for one year and, using information submitted from local administrators, state staff compiled and analyzed data. Local education units in which 34% of the programs did not meet a standard were identified and required to prepare a program improvement plan.

ALASKA

Type of System:

Alaska has developed separate systems of performance standards and measures to evaluate secondary and postsecondary vocational education programs assisted with Perkins funds.

Measures and Standards:

The secondary measures are:

competency-based programs,
occupational competency, and
career information.

Competency-based programs are defined as programs which are outcome-based and include job specific competency lists. By the end of 1994, all courses submitted to the State for approval were to be competency-based.

Occupational competency is measured through student demonstration of competency in job specific competencies. All students enrolled in vocational education will demonstrate satisfactory progress in achieving mastery of the basic and advanced skills specific to each program.

Career information is a measure of the dissemination of information to students regarding opportunities available in vocational education, eligibility requirements, specific courses available, potential employment opportunities, and placement services. This measure applies to all individuals with special emphasis placed on information provided to special population students and their parents or guardians.

The postsecondary measures are:

competency-based programs,
student competency gain, and
access to career planning and placement services.

Competency-based programs measure the number of courses having outcome-based curricula and include instruction which enhances mastery of basic and advanced skills specific to each program. By the end of 1996, all curricula will include competencies and instruction that reinforce mastery of basic and advanced skills.

Student competency gain measures students' mastery of basic and advanced skills. This is demonstrated through course completion or the results of an assessment appropriate for this purpose.

Access to career planning and placement services is measured by an institution's development of recruitment information which indicates that placement services are available to all program completers.

Special Populations:

At the secondary level, guidance is provided to local education agencies in the standards and measures system to reinforce and emphasize that special population students are to be afforded an opportunity to access vocational programs equal to that afforded the general population and outlining that special population students are to make satisfactory progress in achievement of basic and advanced skills similar to the proportion of general population students making satisfactory progress.

At the postsecondary level, it is outlined in each standard that special population students will receive assistance commensurate with their needs to assure access and appropriate progress in their vocational program as well as appropriate career planning and placement services.

Evaluation Process:

Evaluations are a local responsibility. The local education agency must, however, describe in their local application their use of performance measures and standards to evaluate progress. Annual performance reports submitted by sub-recipients are to include descriptions of competency-based standards and measures used to determine if students have met outcomes. They are also to describe program improvement plans to ensure that students meet standards and measures. Local program evaluations are analyzed by appropriate state staff. The state staff reviews performance standards and measures through the monitoring process.

ARIZONA

Type of System:

Arizona's system of performance standards and measures is the basis of local program evaluation for all secondary and postsecondary programs.

Measures and Standards and Special Populations:

The system includes five measures:

basic/advanced academic skills gain,
occupational competency attainment,
retention/completion in high school (secondary only),
placement, and
incentives (special populations).

In secondary programs, the academic skills gain measure is targeted toward those students who do not possess the identified skills at the beginning of their course/program. In this target group, all students are to demonstrate gain in skills associated with their program or course. At the postsecondary level, academic skills achievement and occupational competency attainment are measured by a program completer's attainment of academic proficiency and occupational competencies required for his or her program. While at the secondary level, separate standards for course completers and for program completers are established to measure occupational competency attainment. Eighty percent of course completers will attain 80% of the occupational competencies associated with the course while 100% of program completers must attain 80% of the competencies associated with a program. Arizona Curriculum materials that are provided to local education agencies contain all the competencies linked to this measure.

Retention and completion is measured only at the secondary level. It is measured by identifying how many students who enroll in a course associated with an approved vocational program, continue to attend or complete high school. The standard is 90%.

Placement, at the secondary level, measures the number of program completers placed into employment, enrolled in training or education at an accredited institution, or in military service. At the postsecondary level, placement is measured by the percentage of cohort postsecondary and adult students placed in employment, further education or training, or the military service. An increase is to be attained each year until standards to be established by the state are achieved.

Implemented in 1994, the measure "incentives to encourage service to special populations" establishes that each program, secondary and postsecondary, targeted as a recipient of Perkins funds, must provide incentives or adjustments and demonstrate that they are in place.

Evaluation Process:

Each local district or postseconday institution designates a vocational technical education program evaluation coordinator to establish and lead a program evaluation team that includes representatives of special populations, educators, and business and industry and to oversee the conduct of the annual evaluation. The results of each evaluation are reported to the state. The state developed two guides and conducts an annual workshop to assist locals in the understanding and implementation of the evaluation process.

Programs have up to five years to meet fully the performance standards. However, after the first year, programs not meeting the performance standards and measures are required to develop and implement a local improvement plan. While implementing a program improvement plan, programs are designated "provisionally approved". Programs not achieving the performance standards for five successive years are ineligible to receive state or federal funding.

Incentives, Adjustments, and Modifications:

In addition to the measures directed toward targeted groups, the system allows for modifications in the achievement of secondary student standards through the Individual Vocational Education Plan (IVEP). Also, the retention measurement may be adjusted for those students identified as at-risk, using the criteria identified in the Arizona At-Risk Project. To measure incentives to encourage service to targeted groups, postsecondary programs are to document, annually, their progress in achieving equity in the access, retention, and completion of special population students, relative to the general population.

ARKANSAS

Type of System:

Arkansas has established separate systems of performance standards and measures to evaluate secondary and postsecondary vocational programs.

Measures and Standards and Special Populations:

The secondary measures are:

academic achievement,
educational attainment,
occupational competence, and
access and equity.

Academic achievement is measured through the administration of pre- and post-tests for all students enrolled in Level 1 and Level 2 applied academics courses. The Stanford Achievement Test is used to show student gains.

Educational attainment is a measure of the rate of enrollment in vocational education, rate of completion of tech-prep programs, and students' post-high school activities. The standard for vocational enrollment is that at least 60% of all students are enrolled in at least one vocational course and that there is an increase in the number of tech-prep completions. Students' post-high school activities are tracked using a student follow-up form mailed some months after graduation. This information is then reported as part of the State data system. The standard for placement in further education, employment, or military service is to be not less than 80%.

Occupational competence is measured on all occupational areas for which a competency test exists. The standard is an increase in the number of students achieving mastery of technical specialty as evidenced by scores attained on the specific competency test. In addition, the number of students taking the Tech-Prep Common Core courses is tracked. The standard is an increase in the number of students completing the complete core of tech-prep foundation courses.

Access and equity measure the rate of enrollment in vocational education by special population group and by race and gender to ensure that enrollment is fair and representative of the total population. Special populations enrolling in vocational education are to be proportionately representative of the special population of the school. Enrollments in vocational courses are to reflect racial and gender equity as compared with the total school population.

Evaluation Process:

State Board staff receive annual evaluation reports and determine the degree to which local education agencies are making substantial progress in meeting the core standards and measures. In addition to evaluating local reports, on-site monitoring of local programs is conducted. Finally, each local education agency annually submits a program accountability report.

CALIFORNIA

Type of System:

The system originally adopted by California in 1992 was determined to be unnecessarily complex and burdensome. The current system was approved in January 1994. California has developed separate definitions for performance standards and measures at the secondary and postsecondary levels to evaluate all secondary and postsecondary vocational programs. Each measure has both an absolute and a value-added standard.

Measures and Standards:

The system includes the following measures:

basic and advanced academic skills,
retention, and
placement.

At the secondary level, basic and advanced academic skills are measured by student performance on the state-wide California High School Performance Assessment in the tenth grade. The absolute standard is derived from obtaining a score of 75 on a 100 point composite index comprised of rated factors which include student mobility, level of parent education, and the percent of students receiving Aid to Families with Dependent Children (AFDC). At the postsecondary level, the standard and measurement of academic skills is the state-wide average of students successfully completing a vocational education course that integrates academics into the curriculum and leads to a certificate, degree, or diploma.

To measure retention at the secondary level, the dropout complement rate (percentage of students who did not drop out in grades 10-12) is calculated. The standard is achieved by scoring 75 on a composite index or improving the dropout complement rate by 5 percentage points over the base year. Retention at the postsecondary level is measured by calculating the percentage of course completers against the state-wide average.

Both the secondary and postsecondary levels measure placement by the percentage of students employed, enrolled in higher education or additional training, or entered in the military. The standard is the state-wide average.

Special Populations and Evaluation Process:

The system includes information on each special population group for all measures. In addition, at the college level, data on course and program completion rates, including student grades, placement and transfer rates is monitored for each special population group, as compared with the total vocational education population in general.

At the secondary level, annual program evaluations conducted by districts also include monitoring of access, success, and progress of students who are members of special populations. The results of the annual evaluation, including rates of access, success, and progress, are described in the local agency's application for funding.

COLORADO

Type of System:

Colorado has developed a singular system of performance standards and measures to evaluate all approved, Perkins-funded, secondary and postsecondary vocational education programs, not solely those funded under Title II, Part C.

Measures and Standards:

The nine measures are:

achievement of basic/advanced academic skills,
attainment of general occupational skills,
attainment of specific occupational competencies,
successful program persistence and completion,
high school graduation or its equivalent (secondary only),
placement,
client satisfaction (postsecondary only),
sex/ethnicity equity, and
equal access for special populations.

Achievement of basic and advanced academic skills measures students' mastery of the foundation skills outlined in the Secretary's Commission on Achieving Necessary Skills (SCANS) Report. These include the basic skills, thinking skills, and personal qualities. Vocational completers will demonstrate, using locally selected assessments, mastery at level sufficient to attain successful entry level employment and continuing education.

Attainment of basic occupational skills measures students' mastery of the workplace competencies used by effective workers. These are the competencies identified in the SCANS Report and include allocation of resources, interpersonal skills, acquisition and evaluation of information, understanding of systems, and technology. Program completers will demonstrate, on locally selected assessments, mastery of these competencies at levels necessary for successful entry level employment in their target occupations and continuing their education.

Attainment of specific occupational competencies is measured using locally selected assessment in the specific occupational cluster related to the training program. Program completers will demonstrate mastery of at least minimal occupational skills and other prerequisites necessary for entry level employment in their target occupation or industry.

Program persistence and completion measures, by institution, the rate at which students successfully complete a defined vocational program. Recipients are to specify a self-defined target of program persistence and completion of at least 80% or five percent above the 1991-92 baseline completion rate, whichever is less.

High school graduation measures successful completion of secondary school or its equivalent. Each eligible recipient will specify a self-defined target for high school completion of at least 90% or five percent above its 1991-92 baseline rate, whichever is less.

Placement measures the rate at which program completers enter additional education or training, military service, or employment. The local recipient identifies a self-defined target for placement of at least 95% or at least five percent above its 1991-92 baseline placement rate.

Client satisfaction is a postsecondary measure. The measure calculates the percentage of clients (current students, program completers, and employers) satisfied with the vocational education program. Local recipients determine their target client satisfaction rate which is to be at least 90% or five percent above the 1992-93 baseline rate of client satisfaction.

Sex/ethnicity equity measures the rates at which measures 1-7 are achieved by various sex and ethnic groups. Any observed unfavorable gender or ethnic differences in attainment of the standards or in program enrollment will steadily diminish. Whenever a group is under-represented, the local recipient is to identify a target participation rate which is at least five percent above the 1991-92 baseline rate or a rate proportional to the group's representation in the school's population, whichever is less.

Equal access for special populations measures the rates at which measures 1-8 are achieved by various special population categories. The proportion of special populations learners enrolled in vocational education programs will steadily increase. Target participation rates will be at least five percent above the 1991-92 baseline rate or in proportion to their representation in the school population, whichever is less.

Special Populations:

Measure #9, equal access for special populations, is established to address the expanded participation of special populations in vocational education programs. In addition, for students for whom attainment of the standards applied to measures 1-3 is an unrealistic expectation within the timeframe of their program participation, individualized goals (standards), representing significant increase from their baseline assessment, may be developed.

Evaluation Process:

Each recipient is required to submit an annual self-evaluation to the state. All local self-evaluations are reviewed by the Board to determine that substantial progress is being made in meeting the standards and measures. In addition to the self-evaluation of program outcomes as measured by the performance standards and measures, Colorado continues its Quality Vocational Program Review and Improvements Process (Q-Process). Together these evaluations (input/process and impact/outcome) provide information as to the cause of certain outcomes and guidance for program improvement.

Incentives, Adjustments, and Modifications:

Modifications to the nine measures and standards may be proposed based on local economic, geographic, and demographic factors. They may include adjustments consistent with the unique or specific goals of programs to meet the needs of target groups or special populations. Individualized standards may be developed for specific preparation programs for handicapped students who anticipate entry into a supported or sheltered work environment, consistent with the goals of their individualized education plan.

CONNECTICUT

Type of System:

Connecticut has developed a singular system of performance standards and measures requiring the self-evaluation of all secondary and postsecondary programs receiving Perkins funds. Additionally, the state recommends that an eligible recipient assess all their vocational programs whether or not these programs or students receive benefits under the Perkins Act.

Measures and Standards and Special Populations:

The system contains both generic performance measures and standards and program-specific measures. Generic performance measures assess the performance of school-wide vocational programs while program-specific measures are considered to be the core competencies for each program area. The measures are:

vocational program awareness,
nontraditional enrollment,
vocational program access (special populations),
placement,
relevancy of program to labor market need,
basic academic skill,
advanced academic skill, and
employability skills.

The standard for vocational program information awareness is that a process be in place which informs all students of the full range of vocational programs available in the comprehensive high school, regional vocational-technical school, and the regional agricultural center. The target population for this measure is the 8th grade student.

Non-traditional enrollment is measured by the number of students enrolled in courses considered non-traditional for their gender. The standard is an annual increase in the proportion of nontraditional students.

Placement is measured by the number of available program completers either employed, in further education or training, or in military service. The standard is an annual improvement in the numbers. Within five years all vocational programs are to be assessed vis-a-vis their relevancy to labor market and societal needs as well as programmatic needs (i.e., professional in-service and equipment needs). This action is the standard for determining the relevancy of the program to labor market need.

Basic academic skill is measured by the percentage of 10th grade students in vocational education who pass the Connecticut Academic Performance Test. This rate is to equal the percentage of total students in the school passing this 10th grade test. Advanced academic skills are measured using the Connecticut Common Core of Learning. These competency lists and guides identify the vocational, mathematics, science, and communication competencies by program area and course as well as the standards to be achieved through Grade 12. The standard for employability skills is that all vocational students acquire employability skills taught by the school through a choice of curricula (i.e., World of Work or Workplace Readiness).

The measure of vocational program access assesses the enrollment rates of special needs students in vocational education programs. The percentage of special needs students enrolled in each vocational education program will approximate the percentage of special needs students in the total population of the school.

Evaluation Process:

The state provides local recipients with evaluation forms, procedures and technical assistance to conduct the self-evaluation. Self-evaluation reports are then submitted to the state. Local recipients determine whether or not substantial progress towards achievement of the standard is being accomplished.

Incentives, Adjustments, and Modifications:

In addition to, and as part of the self-evaluation process, local recipients are to identify adjustments and incentives designed to encourage the successful participation of targeted populations in applied (vocational) programs.

DELAWARE

Type of System:

Delaware has developed a singular system of performance measures and standards for evaluating secondary and postsecondary vocational education programs receiving Perkins funding.

Measures and Standards:

The system includes both measures of learning and competency gain in academic skills and measures of performance attainment. They are:

competency in writing,
competency in mathematics,
competency in science (proposed),
school completion, and
competency attainment in vocational programs (proposed).

Competency in writing and mathematics is used as the measure of gain in basic and advanced academic skills. At the secondary level, this is assessed using the Delaware Transitional Assessment administered statewide to grades 3,5,8, and 10. Data on students in approved vocational programs will be disaggregated from total data. The standard is the profile gain of vocational programs between grades eight and ten. This profile will match or exceed the profile for all students. At the postsecondary level, this is assessed by calculating the percentage of vocational program students completing all written communication and mathematics requirements as compared with the percentage of students completing these requirements in all institutional programs. The percentage of students in vocational-technical programs completing all requirements will exceed the institutional percentage.

The competency in science measure will be adopted when the state-appointed Science Commission completes its work on math and science curriculum frameworks.

School completion measures the rate at which vocational program students graduate from school as compared with the graduation rate for all students. The graduation rate for vocational program students will match or exceed the graduation rate for all students.

Competency attainment addresses the recommendations contained in the Secretary's Commission on Achieving Necessary Skills (SCANS) Report. This measure will be phased in as state-mandated frameworks for integrating academic and vocational education are developed.

Evaluation Process:

Each local recipient is to conduct an annual evaluation which encompasses either the entire local agency population or a representative sample of participants. Data on 8th grade achievement test scores was collected in 1993. The 10th grade scores, to be used as a basis for the state-established baseline, will not be collected until Spring 1995. Graduation data collected in 1993 was unable to be disaggregated by vocational program students and is not useable. Therefore, state data collection has yielded no information, to date, to identify areas for local improvement.

Incentives, Adjustments, and Modifications and Special Populations:

Local recipients are authorized to adopt programmatic adjustments which allow students with special needs the opportunity to meet the standards set for all vocational education students. In addition, the restriction of the use of funds areas with the highest concentrations of special populations is perceived as the system incentive. Funds are targeted only toward those programs in the upper half of all district vocational programs as ranked by special population.

FLORIDA

Type of System:

Florida's *Consensus System of Vocational Program Performance Measures and Improvement Targets* includes measures and targets (standards) for evaluating all secondary, postsecondary, and adult vocational education programs. The Consensus system includes both "accountable" measures and informational measures to serve as a complete set of program improvement tools.

Measures and Standards and Special Populations:

The accountable measures include:

productivity,
completer placement,
program earnings,
institutional earnings,
basic academic skills,
advanced academic skills, and
enrollment (special populations).

Productivity is applied only to postsecondary and adult vocational programs. Productivity is defined as the rate at which all "accountably enrolled" students are being productively served by their program. This is measured by determining the percentage of program completers and "placed" program leavers against the total program enrollment. Program productivity rates are calculated for both all students and targeted population students.

Completer placement rates are determined for all program levels, (secondary, postsecondary,and adult) by calculating the rate at which all vocational program completers are placed in related employment, further training, or military service. Rates are determined for all students and for special populations.

Program earnings and institutional earnings are the average quarterly earnings levels of former program participants as reported to the Department of Labor and Employment Security. Institutional earnings averages are calculated for all students and again for special population groups. These measures are applied only to postsecondary and adult vocational education programs and institutions.

At the secondary level, basic skills are measured by the percentage of vocational program completers who are eligible for or receive a high school diploma. For adult vocational programs, it is the percentage of students who receive vocational certificates for completion of a 450+ hour program and who have passed a basic skills test in mathematics and language. At the postsecondary level, the measurement of basic skills acquisition is the number of students receiving an associate in science degree.

The advanced academic skills measure is applied only at the secondary level. The measure of advanced academic skills is determined by calculating the percentage of vocational program completers who pass two or more high-level math, science, or communications courses. The state has rated all courses in a three tier framework. Exceptional students and those in dropout prevention programs are excluded from the calculation.

Enrollment, the rate at which targeted populations students enroll in vocational job preparatory programs compared to their enrollment in all vocational programs in the school, is measured only for adult and postsecondary programs.

The targets (standards) are variable indices in that they are based on previous years' attainments. The targets for the productivity, placement, and earnings of special populations are the same as those for all students.

Evaluation Process:

The consensus system was designed to satisfy the requirements of all state and federal mandates regarding performance measures for vocational education programs in an integrated, singular system. The system was constructed around existing databases rather than increasing the data collection burden. The state collects and analyzes the data, then electronically transmits the results (by measure) back to the local agency. This reduces the burden on the local district or institution and insures consistency in computation methodology. To implement the Consensus system, the state drafted a comprehensive implementation manual and conducted a series of workshops. The results of the Consensus System measures, along with other indicators, are published in the Florida School Report each year.

Future Activities:

Future activities include the writing of a series of technical assistance papers to further support the use of the system at the local level. In addition, the state will implement a new state-level program review system that enhances the relationship between output and outcome measures with their standards and the educational process that affects them. This effort will form the basis for program improvement planning.

GEORGIA

Type of System:

Georgia has developed separate systems of performance measures and standards to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards:

At the secondary level, the measures are:

academic gain, and
performance.

The state has established three options from which sub-recipients may select to measure academic gain. Sub-recipients may measure academic gain by either calculating the score gain of vocational students in areas of verbal and quantitative competencies on the Iowa Test of Basic Skills (ITBS) and Test of Achievement and Proficiency (TAP) or equivalent instrument between 8th grade and 12th grade, or by identifying the percentage of vocational students who progress to the next grade level at the end of the school year. For all options, a sliding scale of gain is applied as the standard.

The state has established four indicators from which sub-recipients may select to measure performance: school retention/completion, competency attainment, life and employment skill attainment, and projected placement. School retention/completion measures the percentage of vocational students completing each grade. The standard is a sliding scale increase until a 91+% is maintained. Competency attainment measures the percent of occupationally specific competencies attained by 100% of the students based upon teacher assessment. The average percent of competencies achieved is to be 85% or more in each course. Life and employability skill attainment also measures the percentage of competencies attained. The standard has not been established. Projected placement is a measure of students anticipated post-graduation plans based upon the results of a pre-graduation questionnaire. The standard is a sliding scale increase until the percentage of students projecting placement is equal to or greater than 70%.

The postsecondary measures are:

academic gains,
occupational skills attainment,
job or work skill attainment,
retention, and
placement.

BEST COPY AVAILABLE

At the postsecondary level, academic gain is determined by calculating the score gain of diploma/degree-seeking students in areas of verbal and quantitative competencies on the TTAP (ASSET will be used beginning in 1994) or equivalent instrument in pre-post-test administrations.

Occupational skills attainment is defined as an institution's rate of warranty claims. A positive outcome is a total institutional rate less than 2%. Job or work skill attainment is measured by the rate at which diploma/degree graduates are provided with instruction in work ethics and receive one or more quarterly grades for such performance on their transcripts. The standard is for 100% of all students to receive such instruction and performance evaluation.

Retention rate is defined as the rate at which program exiters graduate and the rate at which institutional exiters graduate. The standard is that 35% of all program exiters will graduate and 35% of all institution exiters will graduate.

Placement is calculated for each program in an institution. The standard is that 85% of all program graduates are employed in the field for which they trained or a related field, are continuing their education, or are in military service.

Evaluation Process:

Using evaluation guides and procedures established by the state, local recipients conduct local evaluations and forward the results of the evaluation to the State Department of Education. State staff review and determine the major dimensions of impact assessment and trends.

Incentives, Adjustments, and Modifications and Special Populations:

At the postsecondary level, measures and standards are established to evaluate the extent and type of special support services offered and provided to members of special populations. The outcomes are measured for members of special populations.

HAWAII

Type of System:

Hawaii has developed separate measures and standards for evaluating all secondary and postsecondary vocational education programs.

Measures and Standards:

The five measures developed for the secondary level are:

academic achievement,
course competency attainment,
placement -- employment,
high school completion, and
placement -- continued education/military service.

To meet the standard for academic achievement, 75% of vocational program students will pass the State-mandated HSTEC by the completion of Grade 12. Course competency is measured by calculating the percentage of students completing course requirements as determined by instructor assessment. The standard established is 80%.

The standard for high school completion is for 75% of vocational education students to receive a high school diploma or its equivalent prior to their 18th birthday. The standard is calculated by the number of vocational education students graduating in proportion to the number of vocational education students in their senior year.

Placement into employment is measured by calculating the percentage of students informing their counselors of a desire to obtain employment upon graduation actually obtaining relevant and meaningful employment. The standard is 50% employment upon graduation. Placement into continued education or military service is determined by the percentage of students who respond to a follow-up survey who are in the military or some form of postsecondary education. The standard is 45% of those responding to a follow-up survey.

The measures established for postsecondary programs include:

course completion -- remedial courses,
course completion -- general education courses,
course completion -- vocational courses,
retention, and
placement.

The measures of course completion target different levels of academic skill acquisition or vocational competency. Attainment of the standard is determined by the rate of students who complete courses with a passing grade as measured by the credits earned ratio. The standard for remedial/developmental courses is 60%, for general education courses it is 65%, and for vocational education courses it is 70%.

Retention is measured by the percentage of students retained in their program of study for two or more terms. The standard is 50%.

Placement includes attainment of employment in a job related to the training program, enrollment in additional education or training, and entrance into military service. At the postsecondary level, the standard is 70%.

Evaluation Process:

Data is collected from the school by the Department of Occupational Education, Occupational Development Section through the school's "Report of Progress To Date" submitted on or before November 15th of each year. First year evaluations were conducted during 1993.

Incentives, Adjustments, and Modifications:

After review of the first year evaluation results, the state has determined to retain the same measures and standards for another academic year. Any need for modification or revision to the measures or standards will be revisited after the second year evaluation.

IDAHO

Type of System:

Idaho has developed separate systems of program performance measures and standards to evaluate all secondary and postsecondary vocational education programs in the State.

Measures and Standards and Special Populations:

The ten secondary program measures fall within three major areas:

occupational skill attainment,
academic skill attainment, and
equity and access.

Occupational skill attainment is measured using two indicators: (1) students' mastery of occupational competencies listed in the Idaho curriculum (or other comparable list) for the occupational area and (2) placement rates from the student's initial program. The standard for mastery of occupational competencies is that a minimum of 90% of the students meet 80% of the competencies. Placement standards are a 90% positive program termination rate and a 75% employment or continuing education within one year of graduation.

Five measures address the attainment of academic skills. The first measure compares the percentage of vocational completers receiving a "C" average in 14 core academic courses with the percentage of all students in the school receiving a "C" average. The second measure assesses students' writing skills using the Direct Writing Assessment. Using a scoring rubric from 1- 5, the established standard is three. The third measure of academic skill attainment compares vocational students' scores on the Test of Achievement and Proficiency (TAP) with the average scores of all students. The standard is that the average score of all vocational students is equal to or greater than the average scores of all students. The last two measures assess academic gain by comparing the difference in student scores on the Direct Writing Assessment given in the 8th and 11th grades and by comparing the difference in student scores on the Iowa Test of Basic Skills (ITBS) given in 8th grade with students' scores on the TAP given in 11th grade. The standard is that the TAP scores will average 21 points greater than the average ITBS scores.

Three measures are used to assess equity and access for all students: the calculation of the instructor/student ratio; the dissemination of vocational education information; and the development of student career/educational plans. The standard for instructor/student ratio is 1-to-300. The standards for dissemination of information and the development of student career plans by the end of ninth grade are 100%.

Twelve postsecondary measures fall within four major areas:

basic/advanced academic skills,
occupational skills attainment,
labor market indicators, and
accessibility and access (special populations).

Three measures address academic performance: the number of programs in which 75% of the students had a 2.0 GPA in communication and math courses; the number of programs in which 75% of the students had completed the required academic courses; and the percentage of institutions where students scored at least 1/4 of a standard deviation higher on a pre- post-test.

Occupational skill attainment is measured through completion rates and student grade point averages. The standards are a 75% program completion rate across all programs and a 70% GPA rate of 2.5 or more across all programs. Program completion is the measure used to assess short-term training programs. The standard is an 85% student completion rate.

The labor market indicators used to evaluate programs are placement rates. The standards are a 90% positive termination rate (placement in any employment, education, or military service), and a 75% placement rate in training-related employment or continued education.

Three measures are designed specifically to address the progress of special populations: the percentage of special population students achieving a 2.0 GPA as compared with all students; the academic course completion rate; and the program completion rate for special populations. The standards are for the percentages for special populations to be equal to that of the general student population.

Evaluation Process:

Local education agencies are required to conduct annual evaluations. The State Division of Vocational Education collects data on all vocational-technical programs as to the school's performance on the measures and standards.

Incentives, Adjustments, and Modifications:

Local recipients may modify the measures and standards, based upon the factors and conditions outlined in the Act, through the local two-year plan.

ILLINOIS

Type of System:

Illinois has established a system for evaluating all secondary and postsecondary vocational education programs that is aligned with the six state goals for vocational education.

Measures and Standards and Special Populations:

The six measures are:

academic achievement,
occupational competence,
employment,
educational attainment,
economic competitiveness, and
access and equity.

Academic achievement is measured at the secondary level by assessing the percentages of students attaining a level 2 score on the IGAP reading and math assessment. At the postsecondary level, academic achievement is measured by using program completion rates.

At both the secondary and postsecondary levels, occupational competence will be based upon assessment of workplace skills, applied academics and technical skills assessment. Assessment instruments are still under development. In addition, postsecondary institutions calculate percentages of students activating the institutional guarantee and are returned for remediation to denote occupational competence.

Educational attainment is measured at both the secondary and postsecondary level by determining the percentage of program completers and/or the percentage of program completers continuing into further education or training.

At both the secondary and postsecondary level, two measures are used to determine employment outcome: employment and employment retention. Employment is calculated for the second quarter after high school graduation or, at the postsecondary level, for the third quarter following the end of the academic year. Employment retention is indicated by continued employment into the sixth quarter following high school graduation or, at the postsecondary level, continuous employment for four quarters after program completion.

Economic competitiveness is a secondary level measure of a program's productivity, quality of service, and training costs. Information is derived from state studies.

Access and equity are measures calculating the enrollment and participation of special populations in vocational education courses at both the secondary and postsecondary level. The enrollment standard is special population enrollment in vocational education courses in comparison to its representation in the total school population.

While standards (performance goals) are established by the state, these standards refer to the desired aggregate performance of all local systems. State goals are not automatically imposed unilaterally on all institutions. Instead, each local entity sets goals appropriate to its local situation.

Evaluation Process:

The State Board oversees the evaluation of all programs. Local recipients annually evaluate programs using the state's macro-data-synthesis system. Performance information is provided to each local recipient by the state on all measures for all vocational-technical education students in the cohort, special populations in the cohort, all students in targeted programs and special populations in targeted programs. A detailed special population report is also provided which reflects performance information for each special population category.

Future Activities:

Future activities include the phase-in of the measures of occupational competence, postsecondary education continuation, and employment retention. Future activities also include the identification of skill standards for selected occupations, development of applied academics and work skills assessments and state-wide testing, incorporation of existing certification/credentialing results in the system, the design of a study of economic competitiveness measures, and the coordination of the performance measurement system with other workforce preparation programs.

INDIANA

Type of System:

Indiana has developed separate systems of performance standards and measures to evaluate all secondary and postsecondary vocational education programs at institutions receiving Perkins funds. Beginning in 1995-96, the system of performance standards and measures will be applied to all vocational and technical education programs regardless of funding source.

Measures and Standards and Special Populations:

The secondary system is composed of four measures. They are:

academic competency gain,
occupational competency attainment,
retention, and
placement.

Academic competency is measured by the percentage of program completers who increase their scores or achieve a grade level equivalency score in English, language arts and mathematics on a pre-post test. The standard is 80% for all students. Accommodations (i.e., time, readers) are identified to ensure that all special populations students are included in the assessment process.

The standard for occupational competency is for at least 85% of program completers to demonstrate mastery in the occupational skills necessary to obtain employment. When the attainment of standardized measures (i.e., SOCAT) or competency-based instruction is not appropriate for a special population student, attainment of the goals established in the student's individualized education plan (IEP) is used.

Retention is measured by the number of vocational education students completing all requirements for a diploma. For special education students, completion of the certificate of completion described in the IEP is counted toward the 85% standard.

Placement includes employment, continued education, or military service within one year of the projected graduation date. Special education students who are receiving transition services, and who are unemployed, are not counted in the first year cohort group. However, placement of special population students in sheltered workshops or in supported employment is counted in the placement rate.

The postsecondary system also contains four measures. They are:

access and equity,
academic achievement,
occupational competency attainment, and
placement.

Each measure addresses adjustments for special population students where deemed appropriate. Students identified by a secondary IEP, or determined to be unable to meet the basic competencies for vocational education programs are exempt from measurement.

Access and equity entails enrollment, completion, and placement rates for targeted populations. The standard is a gain standard requiring a five percent rate increase in each area until the rate is equal to that of the overall or non-targeted population.

Academic achievement is measured by the number of students entering the institution who require remedial preparation. The standard is for an annual five percent increase in the percentage of students successfully completing these requirements in three semesters or less (until a rate of 90% is achieved). The measurement established to determine occupational competency attainment is a five percent annual increase (until 100% rate is achieved) in the percentage of program completers proficient in the skills for the occupation they are prepared to enter.

The placement measure applied to postsecondary programs differs from placement in the secondary system in three areas: (1) followup is based upon the status of program completers within six months of program completion, (2) employment must be in an occupation related to the training program, and (3) the established standard is a five percent annual increase until a 70% rate is achieved.

Evaluation Process:

Indiana state law requires the Indiana Commission on Vocational and Technical Education to conduct an evaluation at least annually that assesses all technical education programs offered at the secondary and postsecondary levels. All data collection methods are in place to gather all information. To facilitate local implementation, the state has developed packets for local institutions that include information on the system, an implementation schedule, and state agency contact persons.

IOWA

Type of System:

Iowa has developed a single system of performance standards and measures to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards and Special Populations:

The eight measures are:

CORE MEASURES (required):
gain in basic/academic skills,
gain in specific occupational competencies,
occupational competency attainment, and
access.

OPTIONAL MEASURES (select 1 of 3):
student satisfaction before graduation,
student satisfaction after graduation, or
retention.

FUTURE (select 1 after implementation of initial measures):
placement, or
employer satisfaction.

The methodology for measuring gain in academic skill and in occupational competency is left to the local district. However, the state-established standard is that 80% of program completers achieve the standard.

Occupational competency attainment is measured by the number of program completers who attain 100% of the program competencies determined critical for employment. The local district is charged to identify the critical competencies, including workplace competencies, and the level of competency necessary for employment.

Student satisfaction prior to graduation is measured by students' perceptions of their preparation. Factors to be rated include: job skill development or improvement, goal achievement, positive work attitude development, occupational and academic competency development, and educational foundation for further learning. Local institutions are to develop methodology and instruments appropriate to their needs.

Student satisfaction after graduation with their occupational and academic skill preparation measures the perceptions of vocational program completers who are employed in a related field. The standard is that 90% of the respondents will rate their preparation satisfactory.

Retention is measured at the secondary level by the percentage of students who enroll in the second unit of a vocational program and, subsequently, complete the program. The standard at the postsecondary level is that 80% of the students who enroll in a vocational program with the intent of completing it, do complete it.

The measurement of placement includes employment (related and unrelated to training), further training, and military service of program completers within one year of graduation. The standard is 90% and only those program completers not seeking employment, training, or military enlistment are excluded from the calculation.

Employer satisfaction is measured by identifying employers' perceptions of vocational program completers in their employ in the following areas: producing quality work, observing job-related rules, working effectively with others, demonstrating skills necessary to do the job, demonstrating knowledge of the industry, demonstrating potential for advancement and/or increased responsibility, and displaying initiative. The standard is that 90% of the employers will rate completers as satisfactory or better.

The access measure is defined as the enrollment levels of all students, including those who are members of special population groups and members from diverse racial/ethnic groups in each vocational education program. The student enrollment by targeted group within each program is to reflect, within a 10% variance, the enrollment of the population in the district or institution or progress towards that standard. In addition, data for the core measures and the optional measures will be reported by gender, racial and ethnic group, and category of special populations.

Two processes are associated with each measure: a definitive improvement process which sets absolute standards and a continuous improvement process which enables a district or institution to demonstrate progress towards attainment of the absolute standard. Locals may decide which process to implement.

Evaluation Process:

Evaluation is conducted locally. Both the data results and a narrative description of the methodology and instrumentation used in the evaluation process are forwarded to the state in an annual report.

KANSAS

Type of System:

Kansas has developed separate systems of performance standards and measures to evaluate secondary and postsecondary vocational programs. While all measures were implemented during the 1992-93 school year after a pilot of selected schools was conducted, the scope of the measures and/or standards will be expanded during a three year phase-in period. This phase-in helps to ensure that no undue burden is placed on the schools during the initial years and allows time for the competency profiles to be developed by the Kansas Competency-Based Curriculum Center at Washburn University, Topeka.

Measures and Standards:

The secondary measures are:

learning gains in basic and advanced academic skills,
competency attainment in workplace skills,
specific occupational competency attainment,
retention or completion of secondary school, and
placement.

During the first year of implementation (1992-93) learning gains in math were measured using the Kansas State Assessment Instrument or another norm-referenced test of the school's choice. In year two, the measure was expanded to assess gains in language arts (reading, comprehension, and writing). This was expanded further with the addition of science in year three. Pre-post testing is conducted at least annually and the pre-test is administered no later than the 11th grade.

Competency attainment in workplace skills currently entails measuring: mastery of managing resources, team participation skills, using computers, and decision-making. This will be expanded to include interpreting and communicating information, developing of learning strategies, exhibiting integrity and honesty, creative thinking, and using self-management skills. Individual schools are to develop procedures to determine competency in these areas. The standard established by the state is that 80% of all vocational program completers will master a minimum of 80% of these competencies.

Specific occupational competency is measured by the program instructor against competency profiles and competency checklists. These data are reported annually to the state. The standard is the same as that for workplace skills. Beginning in the second year of system implementation, local advisory committees will validate program competencies (100%) and update checklists every three years. Annual employer satisfaction surveys will be added in year three to assess the specific occupational skills and competencies of program completers employed in areas related to their training. The standard is for 80% of all program completers employed in areas of their training to receive satisfactory ratings.

The measurement for retention or completion of secondary school is the high school diploma. The graduation rate will equal or exceed that of the general population from that school.

Placement is measured by calculating the ratio of program completers holding jobs, pursuing further education or military services as identified through an annual follow-up survey. The standard is a 70% placement rate. A placement rate for special population students in the secondary program is also calculated. If placement rates for these groups falls more than 10% below that of non-special population students, the institution is to develop a plan for improvement.

The postsecondary system measures include:

learning gains in basic and advanced academic skills,
competency attainment in workplace skills,
specific occupational competency attainment, and
placement.

In the postsecondary system, learning gains in academic skills based upon a pre-post test are measured for only those students enrolled in remedial courses. Ninety-five percent of those students completing a remedial course will show an increase in score. A form has yet to be developed to aggregate this data to the state.

The measures of competency attainment in workplace skills, specific occupational competency attainment, and placement are the same as those at the secondary level.

Special Populations:

Both the secondary and postsecondary systems include a measure and absolute standard for ensuring that the needs of special population students are identified and that they are provided opportunity to receive necessary supplementary services. Criteria, data collection forms and reporting systems are being developed to document attainment of this measure. Data on special population participation by program area are currently available.

Evaluation Process:

The Kansas State Board of Education has developed software for recording and reporting data which will permit electronic reporting of data to the state agency and computer aggregation and manipulation of the data. The software is designed to enable institutions to evaluate the measures of competency attainment in workplace skills, retention or completion of high school, and the needs of special population students at the institutional level. Measures of academic skills and specific occupational skill competency can be evaluated by institution or program. The first data collection for the Kansas statewide system of measures and standards of performance began in October 1993.

KENTUCKY

Type of System:

Kentucky has developed a system of performance standards and measures by which recipients are to evaluate their secondary and postsecondary vocational education programs receiving Perkins funds. The State Board recommends that recipients use the system to evaluate all secondary and postsecondary programs regardless of whether or not the program receives Perkins funds.

Measures and Standards and Special Populations:

The system includes nine measures, most of which contain multiple indicators:

basic/advanced academic skill,
guidance & counseling,
occupational competency,
completion,
placement,
collaboration between agencies,
enrollment (special populations),
gender mix, and
retention.

At the secondary level, basic/advanced academic skill is measured by the performance levels (novice, apprentice, proficient, and distinguished) attained by 12th grade vocational students as reported on the Kentucky Instructional Results Information System in writing, reading, math, science, and social studies. At the postsecondary level, the percentage of vocational students maintaining satisfactory grades in remedial or developmental courses is used to measure basic academic skills while the percentage of vocational students maintaining satisfactory grades in other academic courses is used to measure advanced academic skills.

That guidance services are provided to all vocational students is demonstrated at the secondary level by an assessment of student's learning style, use of interest surveys, dissemination of career awareness information, completion of career exploration activities, and the development of career plans based upon assessment and career goals. At the postsecondary level, the indicators for assessing the guidance and counseling measure are that an articulation process is in place with secondary career guidance programs, that career counseling services are available at the postsecondary level, that counselors participate in professional development activities, and that a system of career information is maintained.

At both the secondary and postsecondary level, occupational competency is measured using student grade point averages. The percentage of vocational education program students with less than a 2.0 grade point average is compared to the average grade point average of all students in vocational courses. Also counted at the secondary level, is whether or not student competency records are completed for each student in an occupationally specific program.

The standard for program completion is a variable rate based upon all students who exit programs except for transfers. The standard is to increase each year until it reaches or exceeds a rate to be determined by the state.

Placement at the secondary and postsecondary level is measured by calculating the rate of program completers who make a successful transition to additional training or education, military service, or work. The standard is a value-added standard of a 5% increase each year until 90% is attained.

Collaboration is measured at both levels. The standard is that documentation of collaborative activities between vocational education and other agencies must be maintained. At a minimum, agency programs with which collaboration is expected are: Job Training Partnership Act programs, Vocational Rehabilitation programs, Adult Basic Education and General Education Diploma programs, and Community Based Organizations.

In both secondary and postsecondary institutions, a 1% - 4% increase over a four-year period in non-traditional enrollment by program in a minimum of 75% of the vocational programs is the measurement to determine gender mix. A gender neutral program is one in which the ratio is a minimum of 75/25 percent.

Retention is measured by the rate of graduation from high school of vocational students. The graduation rate will equal or exceed that of the general school population. No measure of retention is established at the postsecondary level.

Access to vocational education by students who are members of special populations (disabled, disadvantaged, limited English proficient) is determined through the enrollment measure. The standard established for both the secondary and the postsecondary level is that the percentage of special population students enrolled in vocational programs be proportionate to the percentage of special population students in the general student population. This information is aggregated to the institution level.

Incentives, Adjustments, and Modifications:

In the system, adjustments are provided for by weighting the calculations for special population students in the completion and placement measures.

LOUISIANA

Type of System:

Louisiana has established a singular system of performance measures and standards to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards:

basic and advanced academic skill gain,
competency and job/work skill attainment,
program completion, and
placement.

Academic skill gain measures the increase in academic skill attainment by measuring students' successful progression through a sequence of academic core courses or by measuring the increase in the number of students successfully completing proficiency examinations in basic and advanced course skills. At the secondary level, assessment of student gain in academic skill is determined using the math, English and language arts, composition, science and social studies components of the Louisiana Education Assessment Program (LEAP). At the postsecondary level, technical institutes are to use the Test of Adult Basic Education (TABE) while community college and university associate degree programs will assess academic gain using the assessment instrument selected by the Institute of Higher Education. The standard for all programs is that they reflect an annual increase in these numbers.

Competency and job/work skill attainment measures the increase in occupational skills by measuring students' successful progression through a sequence of academic and vocational course skills. Competency is determined by demonstrating an understanding of all aspects of an industry and occupation specific skills in at least one occupation through all written and performance assessments prescribed by the sequence of courses.

Program completion measures the number of students completing a sequence of academic and vocational courses resulting in the award of a diploma, certificate of achievement, associate degree, or (in technical institutes only) gainful employment. The standard is an increase in the percentage of students achieving these goals.

Placement measures the number of program completers who enter additional education and/or training, employment, or military service. The standard is for an annual increase.

Evaluation Process:

Local assessment and report of the gains as they relate to the standards and measures are conducted annually. Recipients of federal funds determining that they are not achieving substantial progress will develop a local improvement plan.

MAINE

Type of System:

Maine has established a singular system of performance measures and standards to evaluate secondary and postsecondary vocational education programs receiving Perkins funds.

Measures and Standards:

The measures are:

high school graduation, completion, or recovery,
linked-postsecondary program enrollment,
successful school-to-work program completion,
mastery of basic/advanced academic, employment, industrial, and occupational skills,
successful entry into appropriate employment,
related occupational/industrial placement,
entry wage differential/advanced placement status, and
three-year positive change of employment status.

High school graduation, completion, or recovery measures the percentage of students receiving high school diplomas, certificates of completion or GED's. The standard is that at least 90% of vocational students should graduate with their class. The remaining 10% should, within a three-year window, return to school and graduate, receive a GED, or complete an adult education program.

Linked-postsecondary program enrollment measures the number of secondary vocational program and school-to-work system students enrolling in articulated postsecondary courses of study. The standard is that 80% of the school-to-work system students will matriculate to postsecondary programs within six to nine months of high school graduation.

Successful program completion applies to school-to-work system students. Discounting migrants, the student attrition rate in applied technology and school-to-work opportunity programs at both the secondary and postsecondary levels should not exceed 15% per year.

Mastery of academic and occupational skills assesses the attainment of skills by program completers. All successful completers will master the minimum competencies and other prerequisites necessary for entry-level employment in their chosen occupations, industries, or career areas. This will be determined by the number of individualized, itemized, verified Certificates of Skill Mastery awarded.

Placement assesses the percentage of vocational program completers who transition into appropriate employment, enroll in further education, or enter military service. The standard is for 90% to be placed within six to nine months of program completion. Appropriate employment is either competitive, supported or sheltered employment in a career area offering reasonable wages and fringe benefits, safe and satisfactory working conditions, and realistic prospects for personal growth and career advancement. The standard for related occupational/industrial placement is 60% placement of program completers in a career directly related to their field of study. At least one half of the remaining completers should enter appropriate employment in an unrelated area.

Entry wage differential will compare the wage and advanced placement of vocational program completers to those entry-level workers without comparable education, training, and preparation. The standard, a three-year positive change of employment status, will be calculated by aggregating wage and employment data for three years in order to compare the hours of work, increased wages and earnings, increased responsibility within a single job, and job promotion or other career advancement of vocational program completers with those not receiving equal career preparation. These measures will be implemented with implementation of the Automated Occupational and Labor Market Information System (AOLIS).

Evaluation Process:

Each local recipient conducts a self-evaluation using the standards and measures.

Incentives, Adjustments, and Modifications and Special Populations:

Local modifications are authorized based upon the factors and conditions outlined in the Perkins Law. They may include adjustments consistent with the unique or specific goals of programs designed to meet the needs of target groups or special populations, including adults requiring short-term training or retraining. Individualized standards may be developed for special preparation programs for students with disabilities who anticipate employment in supported work or sheltered work environments, consistent with their individualized educational plan. Local modifications may be developed using the "regression model" method developed by the Department of Labor which generates unique standards for JTPA service areas.

MARYLAND

Type of System:

Maryland has developed separate systems of performance standards and measures to evaluate all secondary and postsecondary vocational education programs conducted by recipients of Perkins funds.

Measures and Standards:

The seven measures comprising the secondary system are:

skill competency attainment,
postsecondary status,
postsecondary performance,
assessed student knowledge,
student attainment,
postsecondary decisions, and
student participation.

The measure of skill competency attainment may be demonstrated through written examination or the awarding of a competency certificate or employability profile. The state has established no standard as yet.

Postsecondary status is a measure of the rate of employment and continuing education of high school graduates. Within one year of graduation, the percentage of high school vocational graduates employed or continuing their education is to equal (satisfactory) or exceed by +1.0% (excellent) the employment rate for the local educational agency service area.

Postsecondary performance is student success as determined by employer satisfaction or postsecondary educational standing. To be satisfactory based upon employer satisfaction, reporting employers must rate a minimum of 92% of employed completers employed by them as meeting or exceeding minimum job requirements. A standard for "good standing" is on hold awaiting the collection of baseline data.

The assessment of student knowledge is determined from the percentage of students passing the Maryland Functional Tests (reading, mathematics, writing, citizenship) or the percentage of students achieving satisfactory performance levels on each of the criterion-referenced tests in the Maryland School Performance Assessment Program.

The measure of student attainment refers to high school completion. Indicators for this measure include the percentage of students who complete course requirements that qualify them for admission to the University of Maryland and the percentage of high school graduates completing an approved Career and Technology Education Program.

The measure, postsecondary decisions, identifies the relationship between students' high school program and expressed plans on graduation. Information is collected annually by the state using the *High School Graduate Follow-up Questionnaire* completed by graduating seniors 30 days prior to graduation. The state encourages local agencies to conduct follow-up studies to verify this information.

Multiple variables are tracked to measure student participation, including yearly dropout rates and average daily attendance (under 5 days and over 20 days).

The five postsecondary measures are:

program status,
skill attainment,
completer status,
completer satisfaction, and
employer satisfaction.

Program status is determined by program enrollments over a two year period. The standard is for enrollment by program to not decrease by more than 10% and by more than 10 students since the previous year.

Skill attainment is measured by the number and percentage of program completers receiving degrees, licensure, or certification. The established standard is that the percentages do not decrease by more than 10%.

Completer status is a measure of the rate of employment and the continuing education of degree program or certificate graduates. Within one year of graduation, the percentage of graduates employed or transferred to a four year institution is to equal the employment rate for the local area and that 85% of the employed program completers are to be employed in jobs related to their educational program. This measure is assessed every other year.

The measurements of program completer satisfaction and employer satisfaction include an assessment of both the academic and the occupational skill preparation received in the educational program. The standard for these measures is that 90% of surveyed students and employers each rate the preparation as satisfactory.

Evaluation Process:

In the secondary vocational education delivery system, data for the performances measures are collected by the 24 local school systems and forwarded to the state level via the reporting procedures of the Maryland School Performance Program. Data are analyzed and results are reported back to the local education agency in report card form. The postsecondary measures are incorporated into the Program Data Monitoring System (PDMS), established 14 years ago. Data are collected at the State level, analyzed, and the results provided to the 18 community colleges for program improvement.

MASSACHUSETTS

Type of System:

Massachusetts has developed a single system of performance standards and measures to evaluate secondary and postsecondary programs receiving Perkins funds. While the system utilizes the same measures for both secondary and postsecondary programs, it includes two sets of standards -- one set for secondary programs and one set for postsecondary programs. Currently, the performance standards and measures are applied to only those programs receiving Perkins funds. Over the next three years, however, the state plans to phase in the requirement that school districts and colleges receiving Perkins funds must evaluate all Perkins-eligible programs whether or not they are supported with Perkins funds.

Measures and Standards:

The system currently includes the following measures:

completion,
placement, and
follow-on placement.

Completion may be measured at the secondary level by either (1) identifying the percentage of individuals enrolled in a program who have successfully completed their annual program of studies and are ready to advance to the next level of coursework or the workplace, or (2) identifying the percentage of senior year students who will graduate with both a high school diploma and a certificate of mastery in an occupational area. Completion is measured at the postsecondary level by identifying the percentage of students who have completed a one-year certificate program within two years or who earn a two-year certificate or degree within four years. The standard has been established at 90% for secondary programs and 50% for postsecondary programs.

Placement is measured by identifying the percentage of program graduates placed in the workforce, further education or the military within four months of graduation. Two sets of standards are employed at the secondary level - one for placement in training-related employment (70%) and one encompassing both training-related and unrelated employment (90%). At the postsecondary level, however, only training-related employment is recognized and the placement standard is 90%. The validity of this response-driven placement report is reinforced by basing placement rates on program graduates only and by requiring programs to ensure a 65+% response rate.

A follow-on survey of program graduates is conducted approximately one year after graduation. At the secondary level, rates are adjusted to 60% and 90% respectively.

At the postsecondary level, programs must show an 85% placement rate to meet the standard. Again, validity is reinforced by requiring a minimum 65% response rate.

Evaluation Process:

Beginning in December 1993, schools began reporting program completion rates, placement rates, and follow-on placement rates to the state on the annual Standards and Measures Report utilizing data reported each October on the Occupational Education Report. In the initial report, locals also compared their rates against state standards and set goals for each program for each year 1995-1998 (by 1998 all programs are to reach state-established standards). In December 1994, schools submitted their second annual Report. This report compares rates against State standards as well as their locally-established interim goal for 1995. Any program not reaching its yearly goals is to submit a local improvement plan with this annual Report.

The exception to the reporting process described above is completion data for public two-year colleges. The Department of Education will use data collected for the Right-To-Know Law to measure completion rates and data will be examined for the first time in 1994.

System refinement activities being conducted by the state include a collaborative effort between Massachusetts Job Council, University of Massachusetts-Amherst, and the State Department of Education to develop and implement the MISER system to track placement and one-year follow-on of program completers through the wage-reporting system presently maintained by the Massachusetts Department of Revenue.

Future Activities:

Future activities to be conducted by the State include: (1) the redesign of data collection instruments so that data can be extracted for various special population groups and tech-prep program participants, and (2) development and implementation of competency gain and competency attainment measures. Toward this end, the State Department of Education and Northeastern University have identified core competencies for the 30 occupational areas having the majority of student enrollment. As the next step, they plan to develop a process to measure competency gain and attainment. Unresolved to date however, is the development and implementation of a measure of academic competency gain and academic competency attainment.

MICHIGAN

Type of System:

Michigan has developed separate systems of performance standards and measures to evaluate secondary and postsecondary vocational programs receiving Perkins funds.

Measures and Standards:

The secondary system has three measures:

> academic achievement or gain,
> placement in jobs or continuing education, and
> content competency {in Life Management Education (Consumer & Homemaking Education) only}.

Academic achievement is measured by determining the percentage of career and technical education students meeting the requirements for a high school diploma. Placement rates are determined by the Office of Career and Technical Education using a program completer follow-up survey.

The postsecondary system includes measures in three areas:

> basic academic skills attainment,
> advanced academic skills attainment, and
> attainment of occupational work skills.

Basic academic skills attainment is measured by identifying the percentage of academically under-prepared students successfully completing a developmental education course. Advanced academic skills attainment is measured by identifying the percentage of students successfully completing general education courses.

Attainment of occupational work skills may be measured by either determining the number of students successfully completing an occupational specialty course, occupational program, or by determining the percentage of program completers who are employed or who are enrolled in additional education, training or enlisted in military service.

When the percentages are calculated for each of the postsecondary measures, a sliding scale of continuous improvement is then applied to determine whether the program has met the standard.

For example:

> If the percentage of students successfully completing a developmental course is between 75% - 80%, the amount of annual gain should be at least four percent. Once 100% is achieved the benchmark must be maintained.

Special Populations:

In the postsecondary system, the measures of advanced academic skills attainment and occupational work skill attainment include sub-measures that breakout the percentage of special population students meeting or exceeding the standard.

Evaluation Process:

Through 1994, performance standards and measures at the secondary level are being piloted at only eight secondary school districts or schools as demonstration sites.

Postsecondary institutions are required to include the 1991-92 and 1992-93 standards and measures data and analysis in their local Perkins Plan application submitted in May 1994 to the state. Local improvement plans, if applicable, are to be implemented during 1994-95.

Incentives, Adjustments, and Modifications:

At the postsecondary level, recognition will be given for an exemplary concept, program, or professional service rendered to members of special populations. The "Carl Perkins" Merit Award is an annual method for the State Board of Education and the Community College Board to recognize individual schools. Nominees and recommendations are submitted to both Boards for review and vote. The award is presented at the annual TRENDS Conference.

Future Activities:

At the secondary level, future proposed activities include the development of an implementation manual and a video tape on implementing performance standards and measures, conducting workshops on implementation procedures, pilot-testing competency attainment measures for Career and Technical Education wage-earning programs, coordinating with the Michigan Education Assessment Program (MEAP) to modify the MEAP to use as the academic gain measurement instrument, and state-level monitoring of the local evaluation process and implementation of local program improvement plans.

MINNESOTA

Type of System:

Minnesota has developed separate systems of performance standards and measures for evaluating all secondary and postsecondary vocational education programs.

Measures and Standards:

The secondary system includes five measures:

participation,
graduation,
placement,
employer satisfaction, and
student satisfaction.

Participation is measured by program area and special population status using MINCRIS. This instrument can be modified to collect graduation rates as well as other data elements (i.e., sex equity parity within program areas).

The Minnesota Secondary School Follow-up System is used to collect placement, employer and student satisfaction information. The attributes measured by employer satisfaction include technical knowledge, work attitude, work quality, and the overall education of the employee. Data collection for the Class of 1991 provided first year data for the system.

The postsecondary system has implemented six effectiveness measures:

enrollment by college (special population),
enrollment by program (special population),
graduate satisfaction,
related employment,
related employment (special population), and
retention.

A state-set standard has been established for only one measure -- placement. The standard is that a program maintain a 60% training-related placement rate for two consecutive years. Inability of a program to meet this standard results in state review for program retention, restructure, or closure. For the remaining measures, local institutions are to establish "reasonable" standards, using a weighting methodology that allows for a comparative, composite score for each program.

BEST COPY AVAILABLE

Evaluation Process:

Data on each of the measures is collected using existing data systems. For some, modifications to the data systems are being phased-in to support the performance measurement system. Local applications describe the locally established standards. Using the results of the local self-evaluations, annually the state targets two or three programs for review by a focus team.

Future Action:

Future postsecondary initiatives include implementation of three additional measures of occupational competency: industry-based accountability, graduate grades of all students, and graduate grades of special population students.

MISSISSIPPI

Type of System:

Mississippi has developed a singular system of performance measures and standards to evaluate all vocational education programs.

Measures and Standards:

The eight measures are:

program process,
enrollment,
retention,
completion,
graduation,
placement,
occupational competency attainment, and
academic gain.

Program process measures the extent to which vocational programs accomplish the applicable Level I and Level II indicators as listed in the appropriate Mississippi Program Review Instrument. Review Instruments are developed for administration, instructional programs, vocational guidance, special populations programs, community-based organizations, single parent programs, sex equity programs, tech-prep consortia, and short term adult vocational programs. The standard is that programs must accomplish 100% of Level I and 70% of the applicable Level II indicators.

Enrollment measures the average enrollment per full time equivalent teacher unit (student/faculty ratio) of a program. The standards are: enrichment programs -- 11 students/1FTE; basic skills programs -- 85/1; secondary occupational programs -- 30/1; postsecondary occupational programs -- 15/1; short-term adult programs -- 12/1.

Retention measures the percentage of students who have completed and satisfactorily passed a level of instruction. The standards are: enrichment programs -- 87%; basic skills programs -- 84%; secondary occupational programs -- 84%; postsecondary occupational programs -- 86% and short-term adult vocational program -- NA.

Completion is a measure of the percentage of students who completed the program. Standards of 33%, 29%, and 80% are established for secondary programs, postsecondary programs, and adult classes, respectively. Graduation is a measure of the percentage of students who received a diploma, certificate, or degree. The standards are: secondary programs --20% and postsecondary programs --18%.

Placement is a measure of the percentage of students who completed or exited basic skills programs, or secondary or postsecondary occupational programs and are considered positively placed. The standards are 40%, 38%, and 47% respectively.

Occupational competency attainment measures the percentage of program completers demonstrating satisfactory occupational competencies on either a standardized exit exam (preferably a certification or licensure test) or on an individual student competency profile. Eighty-five percent of program completers will demonstrate occupational competency.

Academic gain measures the percentage of students who have completed a level in the program (pass or fail) and have demonstrated gain in the basic and advanced academic skills. Academic gain can be measured by one of three methods: (1) passing academic courses at each level of instruction in the program [two courses at each level for secondary programs and one course at each level for postsecondary programs], 2) completing an Individualized Education Program (IEP), or (3) showing a gain score on a norm-referenced, pre/post-test series. The standard is 93% for enrichment, basic skills, and secondary occupational programs and 45% for postsecondary programs. No standard is established for adult vocational programs.

Evaluation Process:

Local districts are to summarize the results of individual program evaluations on forms provided by the state. The state has developed a computer software program to assist local districts in calculating the data. Summary sheets are forwarded to the state by 1 October each year. Local improvement plans as required are forwarded to the state with the local evaluation summary. Local improvement plans are required for programs not attaining minimum effectiveness. For supportive services, programs, and projects this is defined as meeting the program review measure. For instructional programs this includes the standards related to placement, occupational skills, academic skills, and a majority of the other measures and standards. The state will review all evaluation results, conduct desk audits and monitoring visits to verify data.

Incentives, Adjustments, and Modifications and Special Populations:

Local districts may request exceptions to meeting the standards when extenuating circumstances exist which prevent a program from meeting the standard. Examples of extenuating circumstances include unusual rates of transfers from a district or the opening of new programs. Adjustments to the standards and the establishment of local standards are calculated to reflect the enrollment of special populations in programs and the unemployment rate for the local district as compared with the state baseline. The result may be lower local standards when the percentage of special populations or the unemployment rate is higher than the state baseline or higher standards when the rate of special populations or unemployment rate is lower than the state baseline. No adjustments are authorized for graduation, occupational competency, or academic gain measures and standards nor for short-term adult programs.

MISSOURI

Type of system:

Missouri has established a singular system of performance standards and measures for evaluating all secondary occupational training programs and all postsecondary preparatory vocational education programs [500+ hour adult programs, associate degree and certificate] benefitting from Title II-C funds. In addition, Missouri has created standards and measures for other programs funded with Perkins funds (i.e., supplemental vocational education programs, community based programs, and programs serving single parents, displaced homemakers, and single pregnant women).

Measures and Standards and Special Populations:

The secondary and postsecondary preparatory program measures are:

academic attainment,
academic gain,
occupational competence,
student access (special populations), and
placement.

The attainment of basic and advanced academic skills is demonstrated through mastery of 70% of the key skills (in mathematics, English and/or communications, science, and social studies and/or science) on the 10th grade Missouri Mastery and Achievement Test during the 12th grade or, at the postsecondary level, mastery of 70% of the key skills on an institutionally-selected, Missouri Education Department-approved test at the completion of the vocational program of study. Academic gain at the secondary level is measured by the amount of change in normal curve equivalent (NCE) scores on the above tests between the 10th and 12th grade testing. The standard for change is that the 12th grade NCE is equal to or greater than zero. Postsecondary academic gain is measured by calculating the change in test scores in a program entry - program completion testing sequence.

Occupational competence is defined as mastery of 80% of the essential occupational and employability skills necessary for entry-level employment as identified by the institution and approved by the Missouri State Education Department.

The 85% placement standard is inclusive of all further employment, education or training, and military service. The rate is established by the number of vocational education students who have been enrolled in an approved vocational education program or course.

Access is defined as the participation rate of individuals who are members of special population groups. Participation of these groups is to be equal to or greater than the proportion of their membership in the relevant district or institution population.

In addition, students whose education experience is modified by an Individualized Education Plan (IEP) are excluded in the calculations for measures of academic attainment, academic gain or occupational competence.

Evaluation Process:

Annually, each recipient reports the results of the local evaluation in the local application for the next fiscal year. While the local evaluation must be, at a minimum, based upon the state system of performance standards and measures, local recipients may expand their local evaluation process to fit their needs.

Incentives, Adjustments, and Modifications:

Adjustments are established for each measure to allow:

> exclusions from the calculation rates (i.e., transfer students without achievement test scores), or
>
> interim standards that ensure continuous improvement, (i.e., districts not achieving the access standard are to maintain a 5% annual gain), or
>
> a selection of calculation methods from which local recipients may choose (i.e., placement may be calculated by individual program, course, or aggregated to the institution level, and it may be calculated either annually or on a three year average).

MONTANA

Type of System:

Montana has developed a singular system of program performance standards and measures to evaluate all secondary and postsecondary vocational education programs in the state.

Measures and Standards:

The system includes the following measures:

academic competency gain,
competency attainment,
retention, and
placement.

Progress in achievement of basic and more advanced academic skills is indicated when 80% of the students demonstrate an increase in score on a pre/post-test assessment. Local education agencies may use either a standardized instrument or a teacher or faculty developed, locally-referenced test.

Competency attainment is measured by calculating the percentage of program completers. The standard is that a program demonstrate an increase in the percent of students completing a funded program.

The retention standard is a documented increase in the school retention rate of vocational students by funded program compared against the previous three year average or by some other relevant baseline data.

Placement is measured by calculating the percent of students placed into additional training or education, military service, or employment.

Incentives, Adjustments, Modifications and Special Populations:

Montana has incorporated both modification and incentive into the system. Eligible recipients may explain why and suggest a more appropriate standard for academic gain if more than 20% of the students served cannot be expected to make progress according to standardized or local tests.

As an incentive to encourage service to special populations, Montana recognizes the ten programs that demonstrate the greatest increase in services to at least four of the five special population groups.

Future Activities:

Proposed future incentives include a **monetary** incentive to those top ten local districts demonstrating the greatest increase in services to special population groups. Implementation is pending approval to use up to 6% of the formula-allocated grant to fund this incentive.

NEBRASKA

Type of System:

Nebraska has a singular system of performance standards and measures to evaluate the secondary and postsecondary vocational education programs.

Measures and Standards and Special Populations:

The ten measures are:

academic gain,
occupational attainment,
employability skills attainment,
retention in school,
student satisfaction,
placement,
placement (special populations),
earnings,
employer satisfaction and,
participation (special populations).

Academic gain is demonstrated by an increase in scores on a standardized test of academic gain. A minimum of 80% of vocational students will demonstrate gains equal to that of the total student population in that grade level.

Occupational attainment measures a student's mastery of competencies as listed on an occupational competency exam appropriate for the vocational program area. A minimum of 80% of vocational students will demonstrate mastery of 80% of the appropriate competencies. Employability skills attainment refers to work entry competencies such as those identified in **Workplace Readiness** or **Youthworks**. A minimum of 80% of students will demonstrate mastery of 80% of the employability skills competencies by graduation.

Retention in school is a comparison of the dropout rate of vocational students as compared with the dropout rate of the entire student population. The standard is that the dropout rate of vocational students will be less than that of the entire student population.

Student satisfaction with the vocational and academic skills acquired in the educational program is measured using the ratings reported by vocational students on graduate surveys administered within one year of graduation. Using separate questions for rating academic and vocational skills, the standard for each is that 80% of vocational graduates responding to the survey will rate the skills attained as satisfactory or better

(3 or higher on a 4 point Likert scale). Employer satisfaction with the vocational program graduate employee's vocational and academic skills is also polled using employer satisfaction surveys administered within one year of the student's employment. Again, using separate questions to rate academic and vocational skills, a minimum of 80% of vocational program completers employed in areas related to their training will receive satisfactory ratings by their employer (3 or higher on a 4 point scale).

Placement measures the employment and education activities of vocational education program completers within six months of graduation. The standard is that 80% of vocational program completers will attain placement in a job, in the military, or in a postsecondary education program within six months of graduation. In addition to the analysis of placement data for all vocational completers, data are disaggregated to monitor the placement rate of special population students against the same standard.

Earnings measures the percentage of vocational program completers earning a higher entry level wage or receiving advanced placement (or hiring advantage) as compared to entry level workers who are not vocational education program completers. The standard is that the percentage of vocational education program completers receiving higher entry level wage or advanced placement (or hiring advantage) will be greater than for those who did not complete a vocational education program.

Participation measures the enrollment rate of special population students in vocational education programs. The standard for the participation of special population students in vocational education programs is that it is at least the same as the participation rate of the entire school population.

Evaluation Process:

In Nebraska, responsibility for assessment and program improvement rests with the local institution. No data are collected to determine the extent to which local education agencies are implementing and meeting the performance standards. Technical assistance is available on request.

NEVADA

Type of System:

Nevada has developed a singular system of measures and standards to evaluate secondary and postsecondary and adult vocational education programs receiving Title II funding. While the types of measures are identical, the measurement indicator deinition is unique to the level of program.

Measures and Standards:

The measures are:

achievement of basic/advanced academic skills,
occupational competency gain,
retention (secondary only), and
placement.

The achievement of basic academic skills is determined by successful passage of the Nevada High School Proficiency Exam (NHSPE). Passing the NHSPE is a basic requirement for earning a high school diploma. At least 92% of the occupational students who initially fail the exam in 11th grade will successfully pass the exam within the following year. The achievement of advanced academic skills is determined by the percentage of occupational program completers successfully earning at least one advanced science or mathematics credit by the end of their senior year. The state established standard is that at least 45% of the occupational program completers will earn at least one advanced mathematics or science credit.

At the postsecondary and adult level, achievement of basic academic skills is measured by the percentage of occupational students successfully completing a basic academic skills course (a pre-collegiate level general education remedial course) compared with the percentage of all full-time students completing a basic skills course. At least 65% of full-time occupational students will successfully complete such a course. Postsecondary programs measure the achievement of advanced academic skills by calculating the percentage of occupational students who successfully complete six credits of advanced English or communication courses as compared with the number of occupational education students who attempted such courses. Adult programs measure advanced academic achievement by the percentage of students in occupational programs who successfully complete the requirements for a high school diploma or GED compared with the percentage who are enrolled in an occupational program. For both postsecondary and adult programs the standard is that at least 85% of occupational education students will successfully complete such courses or requirements.

At the secondary level, occupational competency gain applies to those programs that provide business and industry validated occupational competency certificates to program completers. The measure is the number of occupational program completers who demonstrate mastery of at least 80% of the competencies identified on the certificate. Mastery is defined as performance at a level equal to or greater than business and industry requirements as determined by a technical skills committee.

At the postsecondary level, occupational competency gain applies to those programs for which there are certification or licensure examinations administered by a third party agency or organization. The percentage of program completers successfully passing certification or licensure examinations compared with all test-takers will be within five percent of the state-wide or national percentage.

Retention measures the dropout rate of students enrolled in occupational courses as compared with the dropout rate of the total district student population. The standard is that the percentage of students enrolled in occupational courses who dropout will be less than the percentage of students for the district as a whole.

For all programs, placement measures the percentage of occupational program completers reported in continued education or training programs, employed in a job at least 20 hours per week, or entered in military or foreign service for approximately six months (one1 year for postsecondary and adult programs) after program completion. The state-established standard is for at least 90% of secondary and adult occupational program completers and 92% of postsecondary program completers to be in one or more of the placement categories.

Evaluation Process:

Sub-recipients conduct the annual evaluation and forward results of the evaluation to the state. In addition to local compilation of data, state-wide dropout and proficiency exam data will be used in the reporting requirements.

Special Populations:

Special population students are expected to adhere to the same measures and standards outlined for all program levels.

Incentives, Adjustments, and Modifications:

Local education agencies are to develop incentives and adjustments to the measures to provide for the full participation of special population students. Adjustments may include smaller class size, modifications to equipment, alternative assessment instruments, optional graduation diplomas, adjustments to time, and program requirements. Incentives may include additional staff development release time, special recognition for sites, programs, teachers, and administrators who exceed state-wide standards and/or excel in working with special population occupational students.

NEW HAMPSHIRE

Type of System:

New Hampshire has developed separate measures and standards to evaluate all the secondary and postsecondary vocational education programs of recipients of Perkins funds.

Measures and Standards and Special Populations:

The seven secondary measures are:

academic gain,
occupational competency,
program completion,
school-to-work transition,
enrollment (special population),
enrollment (non-traditional), and
student satisfaction.

Recently revised, the academic gain measure now requires measurement using a pre-post-test methodology. Choice of assessment instrument is a local decision. However, the instrument must be capable of assessing both basic and advanced academic skills in mathematics and language arts. It must also be (1) appropriate to the student population served, (2) sensitive enough to measure gain, and (3) reliable and valid.

The measure of academic gain has both a state and a local standard. The state has established a standard that 100% of program completers will demonstrate academic gain commensurate with program objectives. In addition, the state has directed the local recipient to establish a specific amount of academic gain to be achieved in each program.

Occupational competency is measured by attainment of core competencies established for the program. The standard is that not less than 80% of program completers will attain 100% of the core competencies. The standard for the program completion measure is that not less than 80% of students enrolled in a program will complete it.

The school-to-work transition measure is determined from the results of a follow-on survey of program leavers and completers eight months after program completion. The state-established standard is that not less than 80% of program completers responding are either employed and/or continuing their education.

Program enrollment patterns are measured to identify the distribution of special populations across all programs and the proportion of non-traditional enrollments within programs. The standards are, respectively, demonstration of a movement toward

equalizing the distribution of special populations from one year to the next, and an increase in the proportion of non-traditional enrollments from one year to the next.

Student satisfaction with the quality of their vocational program is captured on the follow-on survey. Rating the quality of the vocational program on a scale of 1-4, the standard to be attained for each program is an average score of 2.0 or greater ("Good" to "Very Good") by 85% of the students surveyed.

The postsecondary system contains two measures:

academic achievement and
retention.

The indicator used to determine academic achievement is the cumulative grade point average of program participants. The state standard is that 70% of students enrolled in the program will achieve a cumulative grade point average of 2.0 or higher.

Retention is determined by calculating the percentage of students enrolled in the program at the beginning of the fall semester who are still enrolled at the end of that semester. The standard is 60%.

Evaluation Process:

Local recipients include the results of their evaluation of basic and advanced academic gain in their next year's application for funding. In the application, the local recipient identifies (1) the assessment instrument(s) used, (2) the local standard to be achieved, and (3) the method used in reporting data on aggregate student gains by program and special population group.

To evaluate and report on achievement of the school-to-work transition measure, recipients can choose to conduct either a survey of all students (25+% response rate required) or may survey a random sample of 50% of the student population (50+% response rate required). The survey instruments are provided by the state. Local recipients distribute, collect, and process the surveys and provide the data to the State Department of Education on magnetic tape or floppy disc. The state then provides each local with a summary report of its results including breakouts by program and special population group.

The state collects and compiles data on achievement of each of the measures by institution at the secondary and postsecondary level.

Incentives, Adjustments, and Modifications:

Adjustments are provided in the calculation of academic gain and occupational competency. In those instances where the assessment instrument used to measure academic gain is inappropriate for a student with special needs, an alternative form of assessment may be used. In such cases, the gain measures for these students are reported separately.

Local recipients may modify the program or institutional standards based upon analysis of the previous three years' data or if evidence is provided to substantiate that the previous three years' data do not adequately reflect current conditions. However, modified standards must demonstrate a goal of movement toward improving the program outcomes of the previous years.

NEW JERSEY

Type of System:

New Jersey has established a singular system of performance standards and measures to evaluate both secondary and postsecondary programs.

Measures and Standards and Special Populations:

The state's system includes 17 indicators which are outlined in the New Jersey Program Performance Measures and Standards for Occupational and Technical Programs. These include:

basic and advanced academic skill gain and achievement,
marketable occupational competency gain and achievement,
employer and learner satisfaction with employment preparation,
job placement,
job entrance wage,
program retention or completion, and
the participation of members of special populations (recruitment, retention and program placement, further education or training interest, learner satisfaction, and enrollment in further education or training).

Evaluation Process:

These indicators are implemented through an Occupational Competencies Project, an Assessment Testing Process, and a Job Placement Accountability System.

The Occupational Competencies Project has identified 101 occupations with the highest anticipated annual job openings. During 1992-94, the critical competencies were identified and verified utilizing a system patterned after the DACUM process used by V-Tecs. This list, which includes both academic skills as well as occupational competencies, is the basis for the measurement of performance. With the assistance of the Northeast Curriculum Coordination Center, tests have been identified or developed to assess the academic and occupational competencies.

State-initiated technical assistance activities are being developed and assistance is being provided to local districts upon request.

NEW MEXICO

Type of System:

New Mexico has implemented a singular system of performance standards and measures to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards and Special Populations:

The system includes measures in three areas:

student gains,
placement, and
accessibility.

Two measures of student gain are implemented at the secondary level: gain in both basic math and English and gain in vocational course completion. Academic gain in basic skills is measured through the use of the Iowa Test of Basic Skills (ITBS) during the eighth grade to establish baselines and administration of the New Mexico Competency Exam (NMCE) in the 10th grade. Advanced academic and vocational skill attainment is determined by the rate of completion of courses, programs, and competencies. Successful completion is defined as completion with a grade of "C" or fulfillment of the course requirements in a satisfactory manner.

At the postsecondary level, basic academic gain is based upon obtaining a threshold score on a standardized test (i.e., ACT Enhanced, TABE, GED, CPT, or ASSET) or successful completion of a developmental course. Advanced academic, vocational, and occupational skill attainment are measured by the number of students receiving degrees and certificates and the passage rates for national and state certification and licensing. In 1994, the state set standards for student gain at both the secondary and postsecondary level.

Placement at both the secondary and postsecondary levels is determined by the number of program completers who are employed in a job related to their training program, unrelated to their training program, enrolled in further education, or enlisted into military service. Standards will be established for placement in related and unrelated employment.

Accessibility is measured by comparing rates of enrollment of special population groups in each vocational program with their representation in the school district (secondary) or the service area (postsecondary). The standard for both levels is that special populations be represented in vocational programs at a threshold level of 80% of their representation in the school district or service area. To reinforce sex equity, 25% is the pre-established threshold level for male/female enrollment in nontraditional programs.

Evaluation Process:

Numerous state and federal, education and labor data bases (i.e., census data, unemployment insurance wage rate, military induction records) provide information on the measures. All data flows into the State Department of Education to be processed into a profile for each school district and postsecondary institution. Once the profiles are compiled, they are forwarded to the district or the institution to be used in program improvement and planning.

Incentives, Adjustments, and Modifications:

Schools meeting or exceeding all standards will receive recognition as Outstanding Vocational Programs. This listing will be presented to the State Board of Education, listed in the State Vocational Newsletter, and schools will receive a certificate of outstanding performance.

Future Activities:

Additional incentives currently being explored include extending the time between state monitoring visits, canceling monitoring of selected local agencies, or permitting selected local recipients to omit specified items from their funding proposals.

NEW YORK

Type of System:

New York has established performance standards and measures for all secondary, postsecondary and adult vocational education programs in institutions receiving Perkins funds.

Measures and Standards and Special Populations:

Four measures and standards were adopted for secondary programs:

basic academic skills attainment,
program completion,
program completion (special population), and
program success (placement).

Academic attainment is measured by calculating the percentage of program completers (those who complete an occupational sequence of three or more units) successfully passing the Regents Competency Tests (RCT) in mathematics, reading, and writing. The state standard is 100%. The State is piloting an expanded system of standards for occupational education that consists of advanced academic and personal work skills.

Two standards were established for program completion, a basic standard of 76% and an advanced standard of 95%. Program success is measured by the percentage of program completers who are employed or pursuing additional education. Two standards have been established, a basic standard of 77% and an advanced standard of 98%.

Separate measures of program completion and program success are established for disadvantaged and disabled students. Agencies are expected to close, by two percent per year, the gap between the rate for special population groups and the total occupational education population.

The measures in the postsecondary and adult systems are:

program completion,
employment or continuing education,
targeted enrollment,
targeted success, and
skill acquisition.

The measures of placement, employment and targeted success are applied only to credit and non-credit programs intended to lead to employment. Programs leading simply to skills enhancement are not being measured or assessed. The enrollment

(participation) and success (placement) of special populations are evaluated, as they are in the secondary system.

Evaluation Process:

At the secondary level, first year evaluation data have been collected and submitted to the state for review. The results of two years' evaluations are being used by local agencies which are conducting a comparative analysis of the results for progress towards attainment of the standards. Local improvement plans will be developed as appropriate and implemented during 1995-96. The state will monitor the 1995-96 local evaluation.

At the postsecondary level, methodology for the measurement of all indicators is in place with the exception of skill acquisition. Data collection and analysis are aggregated for credit versus non-credit student and/or program status. Placement information is collected through the use of a graduate follow-up survey as no wage-reporting system exists.

Future Activities:

At the secondary level, the state is assessing whether to develop a measure of job competency as part of the system of standards and measures. This will be predicated on the progress of the federal skill standards projects, the work of the State Curriculum and Assessment Committee to develop job competency assessments, and the establishment and direction of Career Major Panels established as part of the state's School-To-Work Opportunities Act planning. In addition, the state is revisiting how academic attainment is currently measured as the Regents Competency Tests will no longer be used upon the development of the Assessment of Initial Mastery.

During 1993, at the postsecondary level, the state conducted a Student Skill Acquisition Survey of all programs to assess current practices for identifying, measuring, and documenting skill acquisition. At the conclusion of the initial survey, and as a next step in the process of establishing a measure of skill acquisition, institutions will be asked to submit institution-wide student skill acquisition assessment plans.

To evaluate issues such as long-term placement, employer perceptions and student satisfaction, targeted follow-ups (of a state-wide sample of program completers) will be undertaken for both credit and non-credit programs focusing on specific occupational areas.

Standards for postsecondary and adult measures will be established through a public forum after review of the 1992-93 evaluation data. A process for the periodic review of the standards is planned for development.

NORTH CAROLINA

Type of System:

North Carolina has established separate systems of performance standards and measures to evaluate all vocational education programs in the state.

Measures and Standards and Special Populations:

The eight secondary measures are:

career development,
enrollment (special populations),
competency achievement,
competency gain (two measures),
placement (education),
employment, and
employment (related).

Career development is measured by the number of students having a career development plan (CDP) on file which includes academic and vocational courses appropriate for the student's designated career goal. The standard is for every student to have a CDP.

Enrollment measures the participation of special population students in each vocational education program. The standard is that enrollments of special population students in each program area will not differ more than a third from the overall special population percentage enrolled in all vocational education programs in the school. Deviations must be supported by documentation of student choices as reflected in student's CDP's.

Competency achievement measures the percentage of students mastering 80% of the core competencies in each course (as designated by the state-wide course blueprint). The standard is that 80% of the students will master 80% of the competencies.

Competency gain is measured on both Level I, non-sequential vocational courses, and Level II courses. Eighty percent of all students completing a Level I course will have gained a minimum of 60% of the difference between the pre-test score and the post-test score as measured by tests of the core competencies designated on the state-wide course blueprint. Eighty percent of the students completing a Level II course will have gained a minimum of 40% of the difference between a pre-test and post-test score as measured by tests of the core competencies as designated on the state-wide course blueprint.

Placement is a measure of the number of students entering further education or training including that received in military service and on-the-job training. The standard is that 70% of all vocational education completers will enter further education.

Two employment rates are calculated by program area for vocational program completers. The unemployment rate for completers seeking full-time employment is calculated. It will be lower than the county's youth unemployment rate. In addition, of completers finding full-time employment, 70% will be employed in jobs related to their vocational program.

The postsecondary measures are:

learning and competency gain,
retention, and
participation (special populations).

Learning and competency gain are measured by calculating the percentage of students completing 25%, 50%, 75%, and 100% of the courses needed for curriculum completion or graduation. Also reported are the rates at which vocational education students are required to take and pass remedial basic academic courses and general education and related courses.

Retention rates are reported by credit hour categories (<5, 6-8, 9-11, and >12 credit hours). Retention rates are calculated by determining the number of students enrolled in the fall quarter who did not graduate that quarter and subsequently enrolled and completed at least one additional course during the following winter or spring quarter. Students enrolled in enrichment or enhancement courses, special credit, or dual enrollment or Huskins Bill courses are omitted from the cohort.

Postsecondary institutions may choose from two methods to measure the participation of special population students in vocational education. The ratio of participation may be calculated on the percent of special population students enrolled in vocational curricula to the percent of special population students enrolled in all curricula programs in the school. Method two is to calculate the percent of special population students completing vocational curricula to the percent of special population students completing all curricula programs in the school population.

No standards are established.

Evaluation Process:

At the secondary level, local educational agencies describe in their annual application the strategies used to improve the access, progress, and success in attaining the performance standards. The State Board publishes overall statistics at the local education agency level and at the program area level in each school for five of the eight performance standards. The local agency uses this information to establish benchmarks. The Board than publishes statistics to indicate progress in meeting these standards. The information is presented for both regular and special populations students.

At the postsecondary level a centralized data collection system is being developed.

NORTH DAKOTA

Type of System:

North Dakota has established a singular system of program performance measures and standards to evaluate all secondary and postsecondary vocational programs. Performance standards are the second component of the state's three-component, Standards of Quality evaluation and continuous improvement system (quality of design and redesign, quality of performance, quality of conformance).

Measures and Standards:

The performance measures are:

learner outcomes, and
education/employment outcomes.

Learner outcomes refer to student progress in attainment of academic skills and occupational-technical skills. Two sub-measures address learner outcomes. At the secondary level, progress is measured by comparing the 8th grade and 12th grade scores of vocational students on the state-wide Comprehensive Test of Basic Skills (CTBS). The standard for this measure is a minimum gain of .1 normal curve equivalent. In both secondary and postsecondary programs 80% of program completers must demonstrate attainment of 80% of the program competencies.

Education/employment outcome refers to the post-program placement of occupational program completers. A positive placement is defined as military service, employment related to the training program, apprenticeship, additional high school or college education (secondary) or additional college education in a related field or other vocational technical education program (postsecondary). The program standard is a 75% positive placement based on a 6-month follow-up of program completers from the previous year. No more than 10% of program completers may be reported as status unknown.

Incentives, Adjustments and Modifications:

Student attainment of 80% of the competencies and/or tasks identified for a program may be modified through a student's Individual Vocational Education Plan.

Evaluation Process:

Local education agencies annually complete the three-component Standards of Quality document as a self-evaluation. Results of this self-evaluation are forwarded to the state. The State Board reviews each self evaluation for effectiveness. Local education agencies ultimately receive a letter identifying areas of non-compliance. Technical assistance is provided on an as-needed basis.

OHIO

Type of System:

Ohio has developed three sets of core measures and performance standards to evaluate all secondary, full-time adult, and postsecondary (associate degree) vocational programs. The Ohio Board of Regents has requested, however, that the postsecondary standards be applied to only those postsecondary programs receiving federal funds.

Measures and Standards and Special Populations:

The measures forming the secondary and full-time adult systems include:

awareness of vocational education opportunities,
basic, advanced, and applied academic learning,
occupational competency,
placement,
enrollment,
retention,
career development (secondary only), and
work and family life competency (secondary only).

The awareness measure includes informing students and parents of general career and specific course information as well as information on eligibility, application procedures, and available support services.

In the secondary system, passage of the ninth grade proficiency test, which is required prior to award of the high school diploma, is used to measure basic and advanced academic learning. Applied academics and occupational competency are measured using the vocational education competency tests offered by the Instructional Materials Laboratory at Ohio State University or an alternative standardized test.

Multiple indicators (primary and secondary) have been established for measuring placement in an occupation or in further education. Satisfactory rates of placement are higher for program completers at the postsecondary level than for program completers of secondary programs. For example, the percentage rates of employment in occupations related to training are 60% at the secondary level and 80% for full-time adult programs.

The enrollment measure for secondary programs assesses the participation of special population group members in various vocational education programs, Occupational Work Experience Programs, Occupational Work Adjustment Programs, and Work and Family Life Programs. The established standard is a threshold of 25% for "non-traditional" enrollment in secondary vocational programs. Likewise, the enrollment measure for full-time adult programs assesses the participation rates of special populations in full-time vocational programs and the gender demographics of applicants.

The secondary system also measures the learning and competency gains of students (special population) enrolled in Work and Family Programs, including those enrolled in GRADS, using vocational education competency tests offered by the Vocational Instructional Materials Laboratory at The Ohio State University.

The retention measure within the secondary system addresses the dropout rate of GRADS students and establishes a rate no higher than 15%. For programs serving adults, retention is measured on positive program outcomes: program completion, transfer to further education, or employment related to the occupational area. The full-time adult program retention standard is 65%.

The secondary system also includes an additional measure: career development. Career development is measured by identifying the percentage (75%) of students articulating an occupational goal and an educational plan to achieve that goal. This data will be captured through random sample interviews.

Core standards and performance measures for postsecondary associate degree institutions build on already successful practices established by each institution. The measures include:

basic academic skills,
advanced academic skills,
placement,
occupational competency (proposed), and
enrollment/graduation of special populations (proposed).

All students are tested upon enrollment to identify any need for remedial instruction. Those students lacking the necessary competencies for the degree program are enrolled in developmental courses. The successful completion of developmental courses is the measurement used to determine gain in basic academic skills. Advanced academic learning gain is measured by successful completion of general education courses (English and/or communications) required in the associate degree program.

As economic conditions vary across Ohio, local variance to the placement standard may be justified. However, the state-established standard is 75% in training-related employment, 90% total employment, and 95% employed or enrolled in additional training, military or foreign aid service.

BEST COPY AVAILABLE

Implementation of measures of occupational competency and the enrollment/graduation of special populations is under consideration and data are being collected and evaluated.

Incentives, Adjustments, and Modifications:

Ohio has established a set of both positive and negative incentives. Positive incentives include: higher priority for receipt of sex equity grants, reduced reporting requirements, and recognition awards for service to special populations. Negative incentives include: withdrawal of units that fall below enrollment/placement standards, lower priority for competitive grants, increased reporting requirements, and reduced priority for receipt of new secondary vocational education units.

OKLAHOMA

Type of System:

Oklahoma has developed a singular system of program performance measures and standards to evaluate all vocational programs.

Measures and Standards:

The system includes four measures. They are:

learning and competency gain,
competency attainment including work skill attainment,
retention in school or completion of secondary school, and
placement.

Learning and competency gains are measured by determining the modified percent gain score computed from raw score data gathered from administration of a series of matched tests throughout the duration of each vocational program (a minimum of four testings per year). The standard is that each student will demonstrate a modified percent gain of 20%, 40%, and 60% respectively in FY93, FY94, and FY95 on both total test score and the academic skill component. Gains testing and relevant recordkeeping is conducted entirely at the local level.

Competency attainment is determined through the administration of competency tests (based upon occupational duty or task lists) which include both written and performance components. The standard is that 100% of vocational students who complete occupational training will be competent in a least one occupation. Competency in a specific occupation is achieved when a student scores a minimum of 70% on the cognitive assessment and 100% on the performance assessment. Assessments are developed and scored at the state level and administered at the local level.

Retention and/or completion are measured by comparing the number of vocational completers with the total number of secondary school graduates. The standard is that at least 90% of students who complete an approved vocational program will complete secondary school or its equivalent.

Placement measures the percentage of program completers placed in additional education, or employment including military service. For this measure, program completers are defined as any student who has finished a planned sequence of instruction designed to meet an occupational objective as identified by their instructor. The student may or may not have completed the entire vocational program curriculum content. The placement standard, based on the known status of all program completers, is a rate of 90%.

Evaluation Process:

The evaluation process is a joint state and local effort. The state provides leadership to locals through the development of evaluation procedures, occupational competency assessments and scoring of competency tests, system implementation guides, computer software, and training sessions. Evaluating the progress of local programs in implementing and meeting the state standards is a part of the monitoring and technical assistance process. The state monitors the progress of local programs in implementing and meeting the standards through site monitoring visits and through analysis of the competency assessments forwarded to the state for scoring. Gains testing and all relevant recordkeeping are conducted entirely at the local level. If a program does not meet a standard, the program instructor develops a program improvement plan. Also, each instructor is required to complete and return a report identifying specific progress for each standard to the monitoring staff at the State Department of Vo-Tech.

Incentives, Adjustments and Modifications:

Locals may make local modifications to the system of measures and standards based on conditions and factors identified in the Act as long as the program serves a designated level of students meeting these conditions or factors.

A procedure is established to provide adjustments to the testing situation for programs serving target groups. Some adjustments which may be made to the testing situation include testing time limits, oral administration, test length, readability, etc.

Future Activities:

The state is continuing development of additional duty or task lists and assessment batteries while continuing to update and validate existing task lists and test item banks.

OREGON

Type of System:

Oregon has developed a singular system of performance standards and measures for evaluating secondary state-approved, vocational education programs within each of the six Certificate of Advanced Mastery areas and postsecondary vocational programs leading toward an associate degree, diploma, or certificate.

Measures and Standards and Special Populations:

The system includes four measures. They are:

enrollment,
satisfactory progress,
program completion, and
placement.

Each of the four measures includes an auxiliary measure calculating the rate of achievement of special population and protected class students. The standards for the auxiliary measures are the same as for all students.

Enrollment is a measure of the rate at which students enroll in professional and technical programs. The standard is 40% and 50% enrollment rates by 1995 and 1996 respectively.

Satisfactory progress is the timely and efficient attainment of all requirements of a performance-based professional, technical education program area. During the transition from traditional to performance-based learning, satisfactory progress is defined as attainment of a 2.0 cumulative grade point average during the enrollment year. The standard for satisfactory progress is 100 percent by 1995 and each year thereafter.

Program completion is a measure of the rate at which students in professional technical education programs are awarded Certificates of Advanced Mastery, high school or community college diplomas, associate degrees, or have attained two thirds of all outcomes of a performance-based program. This is applicable to students enrolled in programs in which they have declared a major or declared an intent to complete all requirements for a degree. Students may not have already attained a degree or certificate in the occupational program area or not re-enrolled for three consecutive terms. The standard is that the rate at which professional technical education students become program completers is 83% by 1995 and 85% by 1996. The standard for community college program completers is 60% by 1995 and again in 1996.

Placement is measured by calculating the rate at which professional technical program completers are employed or pursue additional education or training in fields related to their professional technical preparation. Until a reliable method for capturing data on further education is established, the interim measure and standard is that 70% (1995) and 75% (1996) of professional technical education program completers are employed.

Evaluation Process:

The evaluation system incorporates both process and outcome standards to support Oregon's Educational Act for the 21st Century. Outcome standards (standards and measures) are reported annually on every state-approved professional technical program area within each of the six Certificate of Advanced Mastery (CAM) areas. Responsibility and accountability are delegated to the local level while the state's role is focused on providing training and technical assistance.

The evaluation system provides for all data reporting through the Office of Professional Technical Education Management Information System for secondary programs and the Oregon Community College Unified Reporting System for all postsecondary programs. The system provides for linkage to the Department of Employment's unemployment insurance employer wage records to obtain follow-up data through the Oregon Automated Follow-up System.

Incentives, Adjustments, and Modifications:

Local education agencies may modify measures and standards based upon the conditions and factors described in the Act.

PENNSYLVANIA

Type of System:

Pennsylvania has developed separate systems of performance standards and measures to evaluate secondary and postsecondary vocational programs. At the secondary level, annual evaluations apply to all state-approved programs. At the postsecondary level, all occupational specific programs (including adult) at institutions receiving Perkins funds are included in the annual evaluation requirement.

Measures and Standards:

The secondary system contains three measures. They are:

basic and advanced academic skills,
occupational competency, and
placement.

Gain in basic academic skill is measured using the Pennsylvania System of School Assessment (reading and math). The established standard is that the average score of grade 12 vocational-technical students will be equal to or higher than the school average of all grade 11 students. Assessment of advanced academic skill is measured by the number of advanced academic courses (math, science, and communications, and including applied academics) completed by secondary vocational students. The standard established is that 35% of vocational completers will have completed six or more semesters of advanced academic courses.

As of March 1992, vocational-technical education programs in Pennsylvania are required to include content based upon occupational analysis, performance objectives deemed critical to success in employment, and student assessment based upon performance standards. Consequently, occupational competency gain is measured by the number of program completers. The standard is established at 70%.

Placement rate is determined by counting the number of program completers who are employed, in further education, or in military service. A satisfactory placement rate is 90%.

The postsecondary system measures are:

basic and advanced skills proficiency,
occupational competency,
program completion, and
placement.

Proficiency in basic and advanced academic skills and in occupational competency are measured using student grade point averages (GPA). Seventy percent of occupational students are to achieve a 2.0 GPA in their academic courses in a designated year to demonstrate academic proficiency and a 2.5 GPA in their occupational courses to demonstrate occupational competency.

Program completion is based on the ratio of completers to enrollees. A completion rate not more than 8% below the aggregate educational institution completer rate is the established standard.

Placement is determined by counting the number of program completers who are employed in occupations related to their training, in further education, or in military service. A satisfactory placement rate is 80%.

Special Populations:

The Pennsylvania Department of Education will use the results of the Office of Civil Rights reviews to determine the levels of access that special populations have to secondary and postsecondary vocational programs. Measuring the progress of special population students in meeting the standards is conducted locally and the results are included in each district's or institution's two-year plan.

Evaluation Process:

The first local evaluations were conducted in 1992-93. The state-developed a guide entitled *Managing Local Plans* to assist local agencies in understanding the importance of performance standards and measures and in conducting their evaluation. Local agencies are to use these results in developing their two-year plan for 1994-96.

State-wide data were collected and compiled by the state in the spring/summer 1993. The state will analyze the data and disseminate a report in 1994. Data for all measures with the exception of basic academic skills is available through the Vocational Education Management Information System. Data on academic skills will be collected through the Department's School Assessment System.

Incentives, Adjustments, and Modifications:

In both the secondary and the postsecondary system, alternative standards (gain standards) which reflect progress towards achievement of the absolute standard have been established for each measure. Local modifications are allowable. Any modifications of these measures and standards by districts or institutions are described in the local application.

PUERTO RICO

Type of System:

Puerto Rico has developed a singular system of performance standards and measures to evaluate all vocational education programs receiving funds.

Measures and Standards:

The system includes five measures:

academic achievement,
occupational achievement,
retention,
access to special populations, and
employability.

Evaluation Process:

The Information Component of the PR Vocational Planning Office, jointly with the Statistical Division of the PR Department of Education, have identified and validated instruments to be used for island-wide data collection. A study is underway to determine the feasibility of automating data collection.

The Evaluation Component of the PR Vocational Planning Office is expanding the development of computerized item banks to measure competency attainment.

Incentives, Adjustments, and Modifications:

Sub-recipients are permitted to make local modifications to the system of core standards and measures when it can be demonstrated that conditions or factors mitigate against the achievement of the standards. Local proposals must clearly identify the differential factors and reflect that the proposed, modified standards and measures fully conform to the requirements of the Act.

RHODE ISLAND

Type of System:

Rhode Island has developed separate systems of performance standards and measures to evaluate regional planning district vocational-technical education programs. The measures and standards in both systems are organized into three categories -- participation, achievement and customer satisfaction.

Measures and Standards:

The measures in both of the systems include:

awareness of vocational education opportunities,
attendance,
occupational program completion,
retention in career/technical center,
accessibility to special populations,
occupational competency,
academic learning gains,
graduation,
placement,
student satisfaction, and
employer satisfaction.

The awareness measure includes informing students and parents of general career and specific course information as well as information on eligibility and application procedures and support services available. In addition to measuring the enrollment of various special population groups in vocational programs, the measure of accessibility also includes a standard of 25% for "non-traditional" enrollment in secondary programs.

Occupational competency is measured against competencies developed by state-wide craft committees or by scoring 50% on a norm-referenced standardized competency examination. The postsecondary level may also demonstrate occupational competency through licensure, employer satisfaction or articulation with advanced standing to a vocational program leading to a degree.

Separate standards are identified for measures of basic and advanced academic skills. In addition to the standardized Metropolitan Achievement Test, skills may be demonstrated through projects, completion of advanced math or science courses, documented career planning, and employer feedback. Individual students scoring at or below 39% (36% for those identified as Limited English Proficient) are to receive supplemental instruction.

Multiple standards have been established for placement in further education or an occupation. Percentage rates for various sub-categories of educational or occupational placement and for various salary and wage rates have been established. The secondary system calls for both a six month and a long range follow-up. The postsecondary placement standard is placement within three months or the average placement time for the region.

SOUTH CAROLINA

Type of System:

South Carolina has developed separate systems of measures and standards to evaluate vocational education programs. Performance standards and measures apply to all secondary programs, adult programs funded with Title-II funds, and postsecondary diploma/degree programs having comparable secondary-level courses and competencies articulated from the secondary level (or articulation agreements).

Measures and Standards:

The secondary measures are:

academic gain,
competency attainment,
completion, and
placement.

At the secondary level, academic gain is demonstrated by the percent gain in scaled scores of program completers between grades nine and eleven on the Stanford-8 "3R's Battery" test.

Each local education agency may select one or more methodologies to measure competency attainment (i.e., occupational competency tests, profiles, classroom grades). The assessment selected must be designed to show gains in occupational competencies and is to be applied consistently over time.

Completion is indicated by the number and percent of occupational program completers obtaining a high school diploma or certificate.

Placement is indicated by the number of occupational program completers, other than agriculture education completers, employed in a position related to their area of training. The average of the prior three years is calculated to determine that an agency places at least 50% of its completers.

The adult and postsecondary measures are:

academic gain,
competency attainment,
retention (postsecondary only), and
placement (postsecondary only).

Adult education programs may select one or more traditional assessment techniques (i.e., pre/post test, grades,) or performance assessments (i.e., South Carolina Occupational Competency Profiles, product analysis) to measure academic gain and competency attainment.

To measure academic gain, postsecondary programs must demonstrate yearly gain in the number of tech prep students enrolled and achieving success in technical college courses and, by 1994-95, a decrease in the percentage of students requiring developmental/remedial courses. Each institution is to develop its own tracking system to monitor enrollments, successful program completion, and skills progress in college courses, including developmental programs.

Likewise, postsecondary institutions are to develop an assessment system to measure competency attainment. Measures may include grades, grade point averages, completion, advanced credits, exemption from developmental courses, or the relationship of secondary coursework to entry-level postsecondary courses.

Retention is determined by the number and percentages of program completers as compared to 1993-94 baseline data. Tech prep students will show positive and improving retention rates when compared to the general college rate during 1993-97.

Placement refers to placement in a job, enrollment in higher education programs, or enlistment in the military service at rates equal to or above college-wide rates. This will be measured by the percentage of completers available for placement during and after 1994-95.

Absolute standards are not pre-determined nor established at the state level. Local districts and postsecondary institutions are to set their own projections of gain based upon past performance levels.

Special Populations:

No special populations or target groups may be excluded from inclusion in the measurement and calculation of any measure or standard.

Evaluation Process:

Annual evaluations are a local responsibility. Local districts forwarded the results of the first annual evaluation using the measures and standards to the state in the annual Occupational Education Progress Report. This information was analyzed to determine the baseline for current and future progress. Postsecondary data for 1992-93 will not be available until Fall 1994.

In addition to this report, the State Department of Education annually conducts on-site program evaluations of 20% of the local districts and postsecondary institutions to monitor and validate the implementation of the state-wide system. Also, the local application for funding must contain a written plan outlining the procedures for conducting the local evaluation for each measure, a narrative describing the incentives and adjustments used and their impact, evidence of consideration of the activities of other federal programs, and a local improvement plan, if applicable.

Incentives, Adjustments, and Modifications:

Responsibility is delegated to each local district and postsecondary institution to provide incentives or adjustments to encourage service to special populations.

SOUTH DAKOTA

Type of System:

South Dakota has established a singular system of performance measures and standards to evaluate all vocational education programs.

Measures and Standards:

The six measures are:

awareness of vocational education,
program enrollment and completion (special populations),
gain in basic/advanced academic skills,
occupational competency gain,
placement, and
retention.

Awareness of vocational education is measured by calculating the percentage of vocational educators making on-site business/industry visits, by calculating the number of programs conducting at least one public information event, and by calculating the percentage increase in program enrollment (postsecondary only). The standard is one on-site visit by all vocational education instructors, public events by all programs, and a 5% increase in program enrollment.

Program enrollment and completion by special population students is defined differently for secondary and postsecondary level programs. At the secondary level, it measures the percentage of special population students enrolled and completing programs. The percents are to be equal to the percents of non-special population group students in vocational education. At the postsecondary level, it is measured by the types of supplemental instruction and supplementary services provided to special population students and by the types of affirmative outreach and recruitment efforts used by the institution to recruit special population students.

At the secondary level, gain in basic/advanced academic skills measures the percentage of student completers gaining a .5 or more normal curve equivalent on the Stanford Achievement Tests or Metropolitan Achievement Tests in reading, math and science between the 8th and 11th grades. At the postsecondary level, gain in basic and advanced academic skill is measured by identifying the number of students not possessing these skills at the beginning of the program with the number of completers who demonstrate gain in those skills associated with their program.

Occupational competency gain measures student completers acquisition of occupationally specific skills. At the secondary level, 100% of program completers will demonstrate attainment of 70% of the competencies associated with the program. At the postsecondary level, 100% of program completers will demonstrate attainment of 80% of the competencies associated with the program and 80% of employers will indicate satisfaction with the occupational competencies of students.

Placement measures students post-program activities. The standard is for 90% of secondary program completers to be placed into additional training, military, and/or employment while 75% of postsecondary program completers will gain employment or additional education in their identified program field.

Retention measures the percentage of students enrolled in a vocational program who remain in school for an entire year. The standard is 90% at the secondary level and 75% at the postsecondary level.

Special Populations:

Special populations are addressed through establishment of a secondary measure which monitors the enrollment and completion of special population students and which monitors supplemental instruction, support services and recruitment and outreach efforts for special populations at the postsecondary level. In addition, special population students may be considered to have achieved attainment of the occupational competency if they meet the course or program competencies established in their Individualized Vocational Education Program. Program calculations for determining attainment of the placement standard and the retention standard are to include students identified as traditionally gender-underrepresented and other members of special populations.

Evaluation Process:

Local evaluation forms, developed by the state, are used by local education programs in the annual evaluation process. These forms require local districts and institutions to provide an explanation of the activities and strategies to be implemented to meet the standard in the following year. Results are forwarded to the state.

Incentives, Adjustments, and Modifications:

The Committee of Practitioners hears recommendations for state-wide modification of the approved measures and standards at regularly scheduled meetings. The Committee requires written or oral testimony prior to any action regarding a system change.

TENNESSEE

Type of System:

Tennessee has developed separate systems of performance measures and standards to evaluate all secondary, area vocational-technical, and two-year institutions' vocational programs.

Measures and Standards:

The secondary program measures are:

academic gain,
employer satisfaction,
occupational attainment, and
placement.

Academic gain is measured using the WorkKeys assessment developed by American College Testing. Academic skills measured include applied mathematics, reading for information, listening, and writing. Aggregated test results will be used to establish baseline rates from which value-added standards will be established.

Employer satisfaction measures employer satisfaction with the worksite performance of vocational completers in their employ. The standard is an average or above average rating from employers.

Occupational attainment measures student mastery of occupationally specific competencies. The performance indicator is the percentage of students mastering 75% of the competencies in a competency based curriculum framework as determined by the classroom instructor.

Placement is measured using a follow-on survey of students' post-program employment and educational activities. The standard is that 80% of students will be placed in direct related employment by the year 2000.

The measures for area vocational-technical school programs are:

basic skills achievement,
completion,
placement,
student satisfaction, and
employer satisfaction.

Basic skill achievement is a measure of the acquisition of academic competencies of full-time students relevant to their chosen occupational training program. The standard is that

80% of students completing remedial classes will meet the academic competencies necessary for pursuing their chosen occupational program.

School completion measures the rate of students completing programs with a diploma or competency certificate. The standard is that 40% of students eligible for termination will receive a diploma or competency certificate.

Placement measures the number of program completers placed in employment. The standard is that 50% of program completers will be placed in employment.

Measures of student and employer satisfaction calculate the percentage of program completers and employers of program completers who rate their satisfaction level with the level of training provided as either "good" or "excellent". The standard for both measures is a 70% satisfaction rate.

The following measures are established for two year institutions:

general education,
major field,
graduation,
placement, and
employer satisfaction.

The indicator, general education, measures improvement in the quality of the associate degree general education program. This is accomplished by comparing the mean score of program completers on an approved standardized test of general education with either national norms or to previous performance.

The measure "major field" addresses institutional improvement in the quality of the technical/career AAS program. A program will be considered successful if (1) the average score of graduates is either at or above a recognized norm or (2) the average score shows improvement over a previous testing.

Graduation is measured using "persistence to graduation goals" developed by each institution. Persistence to graduation will be calculated by identifying all first-time, full-time enrollees in a specified semester and following the cohort through six years to establish graduation rates.

Placement evaluates the post program activity of program graduates using a follow-on survey conducted 6-18 months after graduation. The established standard is a 75%.

Employer satisfaction with the performance of program graduates is surveyed. Local institutions will establish appropriate positive response benchmarks of average or above average performance ratings by employers.

Evaluation Process and Incentives, Adjustments, and Modifications:

Standards and measures are implemented by all local education agencies without modification. A monitoring and documentation system audits programs for compliance with the standards.

UTAH

Type of System:

Utah has developed separate systems of core performance standards and measures to evaluate secondary and postsecondary vocational education programs funded with Perkins money. While the systems contain the same measures and, in most instances, the same indicators, the measurement instrument and/or the standards may be unique to one level or the other. In addition, the systems contain both mandatory and optional measures.

Measures and Standards and Special Populations:

The secondary and postsecondary measures are:

access and accessibility,
academic achievement,
job/work skill attainment (optional),
retention (optional),
occupational competency gain/attainment (optional), and
placement.

Multiple indicators are used to measure access and accessibility. As an option, districts and institutions may choose to assess program completion in evaluating vocational programs. Mandatory indicators of access and accessibility include:

awareness of vocational opportunities information,
development of Student Education Occupation Plans (secondary only),
enrollment (special populations),
non-traditional program enrollment, and
program completion.

Awareness is measured on the comprehensiveness of the dissemination of information regarding vocational opportunities to parents and students in the 7th/8th and 12th grades. The attainment standard is that 75% of all students and parents will receive this information and that 95% of special population students and parents will receive it. By 1994, the percentages are to be 85% and 95% respectively for 7th and 8th grade students and their parents and 85% and 99%, respectively, for 12th grade students and their parents.

Development of Student Education Occupation Plans (SEOP) is an indicator at the secondary level only. Satisfactory development of SEOPs is demonstrated when 65% of all students and 100% of special population students have effective, functional SEOP's or Individualized Education Programs (IEPs) in place by the end of ninth grade.

The growth standard is that 95% and 100% of students will have effective, operational SEOPs/IEPs by June 1996.

Enrollment as an indicator of access and accessibility is measured on the percentage of special population students enrolled in approved program areas and on the extent of change in non-traditional enrollments. The percentage of special population enrollments is to be equal to or greater than the percentage of special populations students in the high school or college population. The change in non-traditional enrollments should increase annually over the funding period. Additionally, at the secondary level, these increases are to occur until effective, operational SEOPs are the driving force for determining student enrollment.

An optional indicator, program completion, is determined by comparing the completion rate of students in Perkins-funded programs with the completion rates of students in other comparable programs. The "Perkins-completers" rate of increase is 5% annually and should equal or exceed the "non-Perkins-completers" rate.

Currently, two indicators of academic achievement are outlined in the secondary system: (1) state-wide Stanford Achievement testing of 8th and 11th grade students in mathematics, reading, and language artsand/or English, and (2) course completion.

In using standardized testing as the measure of academic achievement, local education agencies are to establish both "acceptable" and "excellent" attainment standards in each academic area based upon national percentile ranks as well as three-year improvement targets.

To demonstrate course completion by applied technology program completers:

1. Schools may document completion of remedial instruction with a grade of "C" or better by 80% of those applied technology students requiring remedial instruction,

2. Schools may document completion of Algebra I and Core English 10 (or the writing assignments required in Grades 9/10) with a grade of "C" or better by 70% of course completers, and

3. Schools may document completion of advanced math and English courses with a grade of "C" or better by 70% of course completers.

At the postsecondary level, course completion is used to measure achievement of academic skills. Basic skill attainment is measured on the percentage of course completers attaining a "C" in remedial or general basic education courses. Advanced skill attainment is measured on the percentage of course completers attaining a "C" in an applied academic course above the 100's level. The minimum standard in both instances is 70%.

Job or work skill attainment is an optional measure which secondary and postsecondary institutions may select. It is measured by determining the number of program completers who demonstrate mastery of program competencies either through portfolios or from a standardized test of workplace skills. (i.e., Work Keys). The standard for program completers with portfolios is 95% while the standard for mastery of all competencies via a standardized test is 90%.

Retention is measured at both the secondary and postsecondary level by the number of students achieving positive outcomes (diploma, certificate, job placement) from their vocational program. Districts and institutions may determine standards and targets based upon baseline data for student retention and/or completion. In addition, at the secondary level, the state has set a 90% annual student advancement rate for measuring students' annual progress toward completion of their vocational program.

At the secondary level, rates of occupational competency gain and attainment in data processing, word processing, accounting, workplace skills, apprenticeship readiness, and Automotive Service Excellence automotive programs are based upon state or industry-identified competencies. Schools report the rate at which students are meeting 80% of these state or industry competencies. For all other programs at the secondary level and all programs at the postsecondary level, the attainment standard is that 70% of vocational students master the expected competencies with a grade of "C" or better. The improvement standard (secondary only) establishes as a future goal that 85% of all secondary vocational students will pass the expected competencies with a grade of "C+" or better.

Placement, a required measure for both secondary and postsecondary programs, assesses the rate of training-related placement of program completers into jobs, further education, and military service. All program completers are to be identified and counted in the calculation. The placement rate, calculated on a minimum one month employment within nine months of program completion, was set initially at 45% with improvement to 65% by 1997. As an option, a district or institution may also assess employer and student satisfaction rates to achieve an 80% rate for both groups.

Evaluation Process:

Many of the current reporting sources for collecting data are generated manually. This information is entered into the State Vocational Education Management Information System (VEMIS), which resembles the former Vocational Education Data System (VEDS) report.

Future Activities:

Future activities include the development of a computerized system to provide all required data and the continued development of financial incentives (from state funds) to reward districts that train students in marketable competencies resulting in immediate post-high school employment.

VERMONT

Type of System:

Vermont has developed a singular system of performance standards and measures to evaluate all secondary and postsecondary vocational education programs.

Measures and Standards and Special Populations:

The system contains multiple measures in each of four areas:

student progress,
program quality,
access (special populations), and
progress (special populations).

Student progress pertains to student mastery of core competencies in the program area, mastery of workplace skills, academic gain, and placement of program completers.

Entry-level mastery of 90% of the core competencies by 80% of the full time students exiting the program is the measurement of occupational competence. The standard for workplace skills is entry-level mastery by 80% of the full time students exiting the vocational program.

Academic gain is measured by comparing students' average program-entry score with their average program completion score. The standardized test used is the Test of Adult Basic Education (TABE). The standard is an increase in average score.

Placement is measured using one and three year follow-up studies of program completers to determine that at least 60% of program completers are pursuing "appropriate" employment or postsecondary education. Appropriate employment is employment related to the student's training program. In addition, data are collected on those employed in unrelated employment, unemployed and looking for employment, and program completers not in the labor market.

Program quality is assessed by evaluating how well a program functions in eight areas: academic skills, occupational skills, workplace skills, capacity, linkages, relevance, special populations, and adults. In addition to using the results of the student performance measures described above, locals rate their programs as to how well they:

integrate academic/vocational education,
provide for sequential courses,
provide experience in all aspects of the industry,

provide the necessary workplace competencies,
provide current curriculum, instructional materials, equipment needs,
provide programs relevant to the current/future needs of the workforce,
establish linkages between secondary and postsecondary programs,
meet the needs of special population students, and
meet the training and retraining needs of adults.

Measures of *access and progress* are used to identify the participation and success of special populations in vocational education programs. Access is determined by calculating the enrollment percentages of various target groups (students with individualized education programs (IEPs), educationally disadvantaged, English as a second language (ESL), and male/female ratio) in the grade, technical center, and program. Progress is measured by identifying:

the number of students completing the requirements of their IEP,
the number of economically and/or educationally disadvantaged students achieving the occupational competency and workplace skill standards established for all students,
the number of disadvantaged and/or non-traditional students demonstrating academic gain on a pre-post program assessment using the Test of Adult Basic Education (TABE), and
the percentage of disabled, disadvantaged, and non-traditional students placed in appropriate employment or education.

Evaluation Process:

Each year, programs are required to perform end-of-year self-evaluations using the standards and measures adopted by the State Board. The results of each program's evaluation are forwarded to the State. By 1995, all standards will be applied to all exiting students and recipients will have fully implemented all measures and standards.

Incentives, Adjustments, and Modifications:

Adjustments are provided for the student placement measure through weighting. An additional one percent is added to the placement percentages for each disadvantaged or non-traditional student and an additional 1.5% is added for each handicapped student in related employment or postsecondary education.

VIRGINIA

Type of System:

Virginia has established a singular system of program performance standards and measures for evaluating secondary and postsecondary vocational education programs supported by federal, state, and local funds.

Measures and Standards and Special Populations:

The system includes four measures:

academic achievement,
occupational competence,
access to and success in vocational education (special populations), and
successful transition.

Academic achievement will eventually be measured by identifying the gain in basic and advanced skills in mathematics, reading, and communication demonstrated by vocational completers on criterion-referenced tests. Until a reliable criterion-referenced test is available, however, LEA's are to utilize course grades, grade point averages, completion or failure rates, scores from the norm-referenced Test of Achievement and Proficiency (TAP), any other standardized norm-referenced test, or locally developed criterion-referenced tests of academic performance. At the postsecondary level, academic achievement is determined by identifying the gain on a standardized or locally developed academic measure or by measuring the successful completion of academic courses required in any occupational-technical education curriculum. No state standards are established.

Occupational competency is defined as occupational-technical and employability knowledge and skills. Occupational competence is measured by determining the percentage of vocational completers mastering the occupational competencies equal to or exceeding those required for entrance into career-sustaining employment, approved apprenticeship programs, or appropriate postsecondary education as determined by a locally validated competency list reviewed by the local vocational advisory committee. The standard is for 80% of vocational completers to master 80% of the competencies.

Access to vocational education programs by members of targeted groups is determined at the secondary level by local education agencies demonstrating full compliance with the incentives and adjustments required under the Perkins Act and other related legislation. At the postsecondary level, institutions are to demonstrate that the representation of identified target groups and special populations in occupational-technical programs of study is proportional to their membership in relevant community college populations.

For both secondary and postsecondary programs, success in vocational education is measured by applying the academic achievement and occupational competence measures to targeted special population groups.

At the secondary level, successful transition is determined by the placement of a vocational completer in a full-time activity (paid employment, related or unrelated, homemaking, postsecondary or continuing education , military or voluntary government/community service) or part-time combinations of these activities totaling full-time equivalency. The standard is that 90% of secondary vocational program completers will make the transition successfully.

At the postsecondary level, successful transition is defined as the placement of a occupational completer/graduate in a full-time activity (educationally-related employment, fulfilling upgrading or retraining goals, transition to an associate degree, or baccalaureate degree program, transfer to a four-year postsecondary program, participation in an apprenticeship program, or enlistment into military or government, or community service) or the full-time equivalency of combinations of the above activities. The rate of successful transition is 80%.

Evaluation Process:

Each local education agency or postsecondary institution completes at the close of each school year, a performance report summarizing their efforts towards accomplishing each of the four performance measures. Those programs not meeting one or more of the standards prepares a program improvement plan. The report and plans are forwarded to the State Department of Education by July 1 of each year. The reports are reviewed and evaluated. A university-based contractor conducts data collection, analyzes local report data, prepares reports, and provides technical assistance related to evaluation procedures.

Future Activities:

A fifth measure is proposed: Employer and employee satisfaction with vocational preparation. Plans are to develop and implement this measure during school year 1994-95 (after full review by the Committee of Practitioners and approval of the State Board of Education).

WASHINGTON

Type of System:

Separate systems of performance standards and measures are developed to evaluate all secondary and postsecondary vocational education programs in the state.

Measures and Standards:

The four secondary level measures are:

basic skill competencies,
work maturity skill competencies,
entry-level occupational competencies, and
skill competencies to progress in education, training, employment.

Basic skill competencies are measures of students' ability to demonstrate mastery of the following: reading, writing, computing basic math computations, understanding and communicating in writing and orally, working well with others including human relation skills and multicultural sensitivities, and performing critical thinking including problem-solving, decision-making, organizing and prioritizing.

Work maturity skills are measures of students' ability to demonstrate acquisition or mastery of the following: possession of appropriate work ethic, appearance, and attitude toward work performance, ability to lead and follow appropriately, ability to adapt skills and attitudes to change and to lifelong learning, ability to manage personal and family life, ability to identify and set education and employment goals, and the possession of job search skills and knowledge of how to access job information.

Entry-level occupational skills are measures of students' knowledge and comprehension of all aspects of the industry being prepared to enter, transition to work within the field, safety precautions, expectations of the world of work, technology, and skill mastery of specific occupational training.

The skill competencies that demonstrate students' ability to progress in further education training, or employment include the achievement of education objectives, satisfaction of the student, instructor, and employer on all measures, and employment or enrollment in the next level of education.

At the secondary level, assessment methodology of the measures and standards are determined locally through collaborative efforts with local advisory committees.

The five postsecondary measures are:

class completion,
program proficiency,
placement,
equal access -- community college (special populations), and
equal access -- technical college (special populations).

Class completion measures completion rates for classes comprising state approved programs which designate student competency with certificates, degrees, or competency lists. The standard is an 80% class completion rate. The cohort is students in their second academic period (quarter, semester) of enrollment. In classes utilizing grades to measure competency, the standard is 80% class completion with a grade of "C" or better.

Program proficiency is measured by the number of state approved postsecondary vocational technical programs having developed descriptions of program proficiencies. Proficiencies are to identify the skills and skill levels to be attained by program completers in communication, computation, human relations, and occupationally specific skills. The standard is that 100% of all programs have these descriptions.

Placement is a measure of the percentage of program completers who are employed, employed in jobs related to their training, in further education or training, in military service or other service such as the Peace Corps.

Equal access in the community college is measured by the percentage of special population students enrolled in each vocational program compared to the percentage of special population students in the institution's non-vocational population. The ratio is 1.0 or greater. Equal access in the technical college is measured by the percentage of special population students enrolled in each vocational program as compared with the percentage of special population adults residing in the technical college's county. Enrollment of special population students is to be equal to or greater than the percentages represented in the county adult population.

Assessment methodology is a local decision.

Special Populations:

Special populations are addressed in the postsecondary system by the development of a measure of equal access (see above).

Evaluation Process:

At the secondary level, school districts use a "gap analysis" process to measure progress towards meeting the standards. A survey instrument, distributed to administrators, teachers, advisory committee members, and students, requests respondents to indicate how often students *should be able to demonstrate* certain competencies and *how often students are able to demonstrate competencies*. The gap between the perception of where students are and where they should be in mastery of competencies is the measure of how well the school is preparing students. State guidelines are that performance should be at least 80% and performance levels below 65% need improvement, however, satisfactory accomplishment of a measure is a local determination. If a district determines that a standard is not met, a local improvement plan is developed and forwarded as part of the local application.

At the postsecondary level, evaluation is a local initiative. Local institutions conduct formative and summative evaluations on individual courses where the emphasis is on mastery of competencies. Program evaluations, conducted annually, emphasize continuous improvement with local determination of the most effective and efficient method for evaluation and implementing changes.

Future Activities:

At the postsecondary level, the State will be designing an accountability system for all workforce training and education. Review of the current measures and standards, as well as current evaluation and monitoring activities, will be a part of this effort.

WEST VIRGINIA

Type of System:

West Virginia has established a singular system of program performance measures and standards to evaluate all vocational programs in the state.

Measures and Standards and Special Populations:

The six measures are:

academic achievement,
instructional competencies,
enrollment (special populations),
placement,
employer satisfaction, and
student satisfaction.

Academic achievement measures the reading and math levels of occupational program completers. Student test levels will be at or above the level required for the occupational levels as established by the ACT/Work Keys. Students with Individualized Education Programs (IEPs) indicating they cannot take standardized tests such as WorkKeys are to be exempted from the WorkKeys assessment and provided alternative assessments.

The measure of instructional competencies assesses the rate at which program completers score a minimum of 80% on a state-adopted core content test or, if a test is not available, using goal profiles. Goal profiles are based on state-approved instructional objectives. The standard is that the average program completer will score a minimum of 80% on the content test. Licensed Practical Nursing, Cosmetology, and the Respiratory Therapy programs are to use licensure testing in lieu of the content test. The standard for these programs is that 80% of program completers will pass the licensing examination. Students with IEPs may be exempt from standardized content exams and assessed against the instructional objectives outlined in their IEP.

Enrollment measures the rate at which special population students are enrolled in vocational programs as compared with the percentage of all special populations students enrolled in the general school population. The standard is that the percentage of special population students being served in vocational programs be greater than the percentage of all special populations students in the general population of the local educational agency.

Placement measures the post program activities of program completers within one year after leaving the program. At least 85% of the program completers will be employed, in the military full-time, or continuing their education. Of those employed, at least 65% will be employed in the field or related area for which they are trained

Employer satisfaction assesses the extent to which employers of program completers are satisfied with their performance within one year of their employment as rated by 80% of employers on a state-adopted survey instrument. Characteristics surveyed include technical knowledge, safety habits, responsibility, communications skills, decision-making, attitude, teamwork, attendance and grooming, customer relations, and potential for advancement. Average employee ratings will be 3.0 or more on a 4.0 scale for each occupational program.

Student satisfaction assesses students' evaluation of the quality and effectiveness of the instructional offering 30 days prior to program completion. Program elements surveyed include teacher's subject knowledge and instructional ability, emphasis on math and science, amount, condition and quality of classrooms, labs, books, equipment, tools, and supplies, opportunity for classroom participation, and perception of job opportunities. The standard is that the average student rating will be 2.5 or more on a 4.0 scale for each program.

Evaluation Process:

Local education agencies conduct annual evaluations using state-developed report forms. Results (by program) are forwarded to the state each year by June 30th.

Incentives, Adjustments, and Modifications:

Local recipients may make modifications to the system. Requests are reviewed by the state to assure they conform to the assessment criteria established for the state-wide system prior to approval or rejection.

WISCONSIN

Type of System:

Wisconsin has established separate systems of performance standards and measures for all secondary and postsecondary programs receiving Perkins funding.

Measures and Standards and Special Populations:

The five secondary measures are:

academic skill,
graduation,
placement,
participation (special populations), and
participation (gender equity).

Academic skill is evidenced by the vocational education student's successful completion of the credits required for graduation from high school. To demonstrate compliance, Districts will require that vocational education participants fulfill the same state-wide graduation requirements established by State statute for all students.

Graduation rate is calculated to determine that vocational students have a graduation rate equal to or higher than the graduation rate for a district's total student population. The gain standard established is that vocational education participation graduation rates will increase by a factor of 1.05 each year until a 95% rate is achieved.

Placement is measured by comparing the rate of placements in employment, further education, and military service related to the instructional program area with the rate of placements that are unrelated to the instructional program area. The gain standard is that the district will demonstrate an increase in its rate of related vocational education graduates placements by a factor of 1.05 each year until a 90% rate is achieved.

Rate of participation of special populations is compared against the rate of participation of a district's general population in vocational education. Districts are to increase the rate of participation of special populations in vocational education by a factor of 1.05 each year until the rate is equal to or greater than the participation rate of a district's general population in vocational education.

Participation is also measured for gender equity. A district is to increase its participant rate by either gender within an instructional program by a factor of 1.05 over each preceding year's rate until the rate is greater than the participant rate of 25% for each gender within the instructional program.

The postsecondary level measures in use are:

program graduates,
job placement,
grant activity -- positive training outcomes, and
remedial basic skills.

Program graduates and employment results are reported for all one and two year occupational programs. Employment results are based on graduates securing employment within 6 months of the end of the school year. The state standards are 35% and 75%, respectively.

The measure, grant activity -- positive training outcomes, calculates the percentage of students receiving Perkins supported activities who achieve one or more training outcomes. Examples of possible training outcomes include "enrolled in an occupational program/course" and "entered a training program in another institution". The standard is that 40% of students receiving support services will achieve positive training outcomes.

Recently implemented, remedial basic skills measures the percentage of students who were in a remedial basic skills class and subsequently completed at least one occupational course.

Evaluation Process:

At the secondary level, all the measures dovetail into the existing secondary vocational data system. The district submits data to the state via the Vocational Education Enrollment Reporting System (VEERS). A district profile is developed which compares a district's current year's performance with the previous year's performance (baseline data is FY 92). Any deficiencies are identified. Local agencies are to respond to the deficiencies by developing and implementing an improvement plan. This plan is submitted to the state for review and approval within 45 days.

At the postsecondary level, data are reported to the state via the Client Reporting System. Local institutions are to use the results of the performance measures to develop local institution plans and the local improvement plans required as part of the local application.

Incentives, Adjustments, and Modificaions:

Local educational agencies not achieving the established standard may request a modification to the standard due to conditions or factors outlined in the Act.

WYOMING

Type of System:

Wyoming has developed separate systems of performance standards and measures to evaluate secondary and postsecondary programs receiving Perkins funds.

Measures and Standards and Special Populations:

The secondary system includes the following measures:

academic gain,
competency gain,
competency attainment,
high school completion,
placement,
enrollment (special populations), and
supplemental services.

Academic gain is determined by the percentage of students demonstrating gain in math, reading, and language arts and/or science as measured by a performance assessment or other assessment tool. The standard is that eighty-five percent of the students enrolled in Perkins-assisted programs will demonstrate significant gain. Significant gain is determined for each school based upon each district's performance standards.

Competency gain is determined by the percentage of students that demonstrate mastery of skills identified in Wyoming's Common Core of Knowledge and Common Core of Skills. These are coordinated with the SCAN's competencies and foundation skills. The standard is that 85% of students in Perkins assisted programs will demonstrate a gain in competencies that are relevant to the Common Core of Knowledge and Skills.

Competency attainment is determined by the percentage of vocational course completers passing a minimum of 80% of the occupational competencies designated on course competency checklists for the course. Eighty-five percent of students enrolled in Perkins assisted courses will satisfactorily complete the course.

Graduation rate is calculated by the percentage of vocational students in Perkins-assisted programs earning a high school diploma or GED equivalent. The rate will equal or exceed that of the total school population and will be 90%.

Placement is determined by the number of placements in additional training or education, military service, or employment compared to the total number of students reporting on a follow-up survey. The standard is that 85% of those returning the survey will report placement in further education or training, military service, or employment.

The established standard for the enrollment of special population students served in Perkins-assisted vocational education programs is equivalent to the percentage of special population students in the total school population of each district or as nearly as demographics allow. Supplementary services will be documented in each student's Individualized Career Development Plan.

The postsecondary measures include:

learning and competency gain,
competency attainment,
placement,
employer satisfaction, and
supplementary services (special populations)

Postsecondary and adult programs measure student learning and competency gain by calculating the percentage of students in Perkins assisted programs demonstrating gain in competencies that are relevant to the SCANS competencies and skills. The standard is that 85% of students demonstrate gain. Data are aggregated to institution level.

Competency attainment is determined by the percentage of postsecondary program students passing 80% of the competencies in workplace skills as enumerated in SCANS and a minimum of 80% of competencies designated for a course which have been validated by each program's Advisory Committee. Institutions may select their choice of evaluation methods.

Placement is defined as the employment, further education or military service enlistment of program completers. The standard is that 85% of all program completers are placed as identified through each institution's student followup procedures.

Employer satisfaction is determined by the percentage of satisfactory ratings given to program completers by their employers as reported on employer surveys. Eighty-five percent of completers employed in areas related to their training will receive satisfactory ratings of their occupational skills and competencies.

Incentives, Adjustments and Modifications:

Supplementary services are viewed as an incentive by encouraging program accessibility to special population students. The standard is that all students performing below the criteria for each vocational program will be afforded the opportunity to receive supplementary services.

Evaluation Process:

Local agencies are provided the standards and measures to use as local guidelines for evaluation purposes. In 1992-93 the state assisted locals by incorporating the standards and measures into the State assessment. Individualized data were provided to each school district and community college for them to evaluate their own progress.